

THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—12TH YEAR.

SYDNEY: SATURDAY, DECEMBER 12, 1925.

No. 24.

Table of Contents

[The Whole of the Literary Matter in THE MEDICAL JOURNAL OF AUSTRALIA is Copyright.]

ORIGINAL ARTICLES—	PAGE.	BRITISH MEDICAL ASSOCIATION NEWS—	PAGE.
"Gleanings from Midwifery Practice," by A. A. LENDON, M.D.	669	Scientific	686
"Modern Developments in Obstetrics," by R. F. MATTERS, M.B., B.S., F.R.C.S.	672	Nominations and Elections	687
"Röntgenographical Examination of Base of Skull and Upper Cervical Vertebrae: The Gargoyle Position," by H. FLECKER, F.R.C.S.	678	THE MEDICAL JOURNAL OF AUSTRALIA	687
REPORTS OF CASES—		UNIVERSITY INTELLIGENCE—	
"Poliomyeloencephalitis Treated Successfully by Human Serum," by REX HYLTON, M.B., B.S.	679	University of Sydney	687
REVIEWS—		OBITUARY—	
Review of Paediatrics	680	James Alexander Greer Hamilton	688
LEADING ARTICLES—		THE JOHN HUNTER MEMORIAL FUND	688
Coming into Line	681	CORRESPONDENCE—	
CURRENT COMMENT—		Diathermy	689
Giardiasis Enterica	682	Our Inconsistency	689
ABSTRACTS FROM CURRENT MEDICAL LITERATURE—		Indications for Interference During Pregnancy	689
Surgery	684	Diagnosis of the Normal Heart	689
BOOKS RECEIVED			
MEDICAL APPOINTMENTS			
MEDICAL APPOINTMENTS VACANT, ETC.			
MEDICAL APPOINTMENTS: IMPORTANT NOTICE			
DIARY FOR THE MONTH			
EDITORIAL NOTICES			

GLEANINGS FROM MIDWIFERY PRACTICE.¹

By A. A. LENDON, M.D. (Lond.),
Honorary Lecturer in Obstetrics, University of Adelaide.

Cyesœdema: A Peculiar Bloating of Pregnancy.

THE object of the somewhat bizarre heading "Cyesœdema: A Peculiar Bloating of Pregnancy," (*κύησις* = pregnancy, *οὐδημα* = swelling) is to attract attention to an accompaniment of pregnancy which I have seen very pronounced in six out of three hundred and sixty-three consecutive cases of midwifery since I first observed the condition in 1901.

It is a peculiar bloating or swelling which is quite distinct on the one hand from anasarca or ordinary pitting dropsey, and on the other hand from the solid swellings such as myxoœdema which it certainly more nearly resembles.

It affects the whole body, but naturally it attracts more attention in the face, as it so greatly alters the features of a young woman as to make her almost unrecognizable towards the end of preg-

nancy. It has occurred only with *primiparæ* in my experience. It disappears with considerable rapidity after the labour is over. It has not recurred in my patients in subsequent labours. Though it is not specially associated with postmaturity according to the maternal reckoning, the babies have been large, in three instances they weighed just under 3.6 kilograms (eight pounds) on the average and in two other cases they were described as very large. In two cases there was some albuminuria, but no other recognized indication of the so called toxæmia of pregnancy.

To describe cyesœdema is a matter of some difficulty and I must confess rather beyond my powers. I was never able to induce a victim of it to sit for her photograph. There is no accompaniment such as the slow speech of myxoœdema, nor the supraclavicular fatty masses; the patient complains of no sense of general ill-health. There is not the pallor of renal œdema, nor the porcelain china tint to be seen in the cheek. There is rather some lividity, but happily it does not suggest alcoholic indulgence; it has not been associated with high blood pressure, though the cases mostly were observed before the sphygmomanometer came into general use.

¹ Read at a meeting of the South Australian Branch of the British Medical Association on September 24, 1925.

Of one of these patients I have lost sight, of the remainder four agree in this respect, that they have all become stout in middle age and three have undergone treatment for obesity.

What is its nature? It is certainly not due to nephritis and I think that hypothyreoidism may be ruled out of the question. I have failed to find any description of oedema in any text book in our University Library, but Whitridge Williams refers to "the non-oedematous" (presumably non-pitting) "thickening of the features observed in so many pregnant women" and suggests that it may be related to hypertrophy of the anterior lobe of the pituitary body which he says has been "shown to undergo regularly great hypertrophy during pregnancy and to atrophy after the termination of the pregnancy."

Am I referring to the same condition as Whitridge Williams? Can any of you throw light upon it?

The Possible Duration of Pregnancy.

The other day when reading Johnson's account of the life of Sir John Suckling, the cavalier poet, I found it stated that he was born in "February, 1609, an eleven months' child; from which circumstance long life and health were expected for him by the gossips;" as a matter of fact he died in 1641 in his thirty-third year. Whether Dr. Johnson or "the gossips" meant lunar or calendar months there is no indication, but one presumes that even three centuries ago nine calendar months was the accepted duration of pregnancy and yet it is a little difficult to know what Spenser meant when he made Amavia exclaim:

Now had fayre Cynthia by even tournes
Full measured three-quarters of her yeare
And thrice three times had fild her crooked hornes
(Faery Queene—Book 2, Canto I., Verse 53).

Nine lunar months only mean two hundred and fifty-two days instead of an average of two hundred and seventy-four for nine calendar months, unless indeed Cynthia, another designation for the moon, indulged in a lunar year, as the Mohammedans do still. But this you may dismiss as a poetic licence and moreover it is a digression.

If Dr. Johnson understood the period of gestation in Suckling's case to be eleven lunar months or three hundred and eight days, this would nowadays be readily conceded as possible. But did he mean calendar months, in which case the duration might even amount to three hundred and thirty-seven days? And, if he did understand the period to be reckoned in calendar months, is such a duration possible?

The problem of the possible duration of the period of pregnancy in women has been frequently discussed in works on forensic medicine, as well as in courts of law, where it has an obvious bearing upon cases of contested legitimacy and of suspicion as to chastity.

How is the period of gestation usually estimated and what are the fallacies in the method? There are but two factors available, namely the date of the last menstrual period and the date of the last sexual intercourse or in some instances the date of a single act of coitus.

The usual plan is to calculate two hundred and eighty days from the first day of the last menstrual epoch and this is done roughly by adding seven days to that date and going back three months. Thus if a period commenced on January 1 the pregnancy may be expected to terminate on October 8. But certain difficulties immediately suggest themselves, for instance there is the unsettled question as to the exact relationship between menstruation and ovulation. Does ovulation precede, accompany, or follow menstruation? Can an ovum survive the occurrence of menstruation and become impregnated and imbedded in the uterus? How long after the ovule leaves the ruptured Graafian follicle does it retain its capacity for fecundation? Again, what is the interval that may possibly elapse between insemination and fertilization, in other words between coitus and conception? In cases of estimation from a single coitus this last factor has to be considered. Casper, the medical jurist, states that the ovum retains its capacity for fecundation for fourteen to eighteen days, but does not give his authorities. Again we know that living spermatozoa have been recorded as found in a Fallopian tube removed twenty-four days after the last sexual congress. It is obvious, therefore, that if fertilization of an ovum took place the day before the menses should have appeared and the menses were suppressed by such fertilization, there would be a possible fallacy of twenty-three days in making the usual reckoning from the date of the cessation of the last menses in a woman whose cycle was twenty-eight days and whose average duration of menstruation was five days. To lessen this source of error some have suggested splitting the difference and making it twelve days. These are precisians who do not like to bind themselves to a dogmatic period of two hundred and eighty days, but assert that the period of pregnancy may vary between two hundred and seventy-four days and two hundred and eighty-six days—which is merely the difference between Tweedleum and Tweedledee.

In searching the available literature I have found instances in the dark ages of medicine where individuals or corporate medical faculties have considered a birth eleven months and thirteen days after the departure of the husband as merely protracted pregnancy—in spite of such a trifling circumstance as the husband having been put into prison by the wife and other suspicious features. The faculty of Leipsic (1630) in one case considered a three hundred and nine days' child illegitimate and a few years later (1638) pronounced a pregnancy lasting one year and thirteen days as legitimate in a widow.

In Edward II's reign the child of the Countess of Gloucester, born one year and seven months after the husband's decease, was held to be legitimate. The Faculty of Giessen knew of a case of birth in the seventeenth month and Petit in 1766 reports a case of three years' duration of pregnancy.

Whilst Casper's conclusion is that cases in which pregnancy is protracted considerably beyond three

ILLUSTRATION TO DR. H. FLECKER'S ARTICLE.



FIGURE II.
Upper View of Atlas.

1, Zygomatic arch. 2, Temporo-malar joint. 20, *Torula Herophili*. 21, Posterior fossa. 22, Arch of atlas. 23, Vertebral foramen. 24, Odontoid process of axis. 25, *Foramen magnum*. (Dental plate in position to show relation of superior alveolar arch.)

ILLUSTRATION TO DR. H. FLECKER'S ARTICLE.



FIGURE III.

Note position dental arches thrown well forward.

3, Coronoid process. 4, Condyle of mandible. 5, Lingula. 6, Posterior orifice mandibular foramen. 7, Vomer. 8, Choana. 9, Rostrum of sphenoid. 10, Mesial pterygoid plate. 11, Lateral pterygoid plate. 12, Pterygoid fossa. 13, Foramen ovale. 14, Foramen spinosum. 15, Basisphenoid and basioccipital. 16, Foramen lacerum medium. 17, Dorsum sellae. 18, Carotid canal. 19, Lateral sinus. (The figures 15 appear over basisphenoid as well as over foramen lacerum.)

hundred days have never been determined by accurate observation, Taussig collected reports of sixty-one cases lasting from three hundred to three hundred and forty-eight days according to the usual reckoning and mentions a case under his own observation of three hundred and twenty-three days.

Sir James Simpson reported four cases of birth three hundred and nineteen to three hundred and thirty-six days after the last day of the last menstruation.

Turning to the legal decisions, in the Gardner peerage case the matter of legitimacy after a supposed gestation of three hundred and eleven days was negatived on other grounds, but of the seventeen medical experts who gave evidence twelve admitted the possibility of gestation beyond the usual period to even three hundred and thirty-seven days: this was in 1823. A century later another Lord Chancellor (Birkenhead) decided that an apparent gestation of three hundred and thirty-one days after the last date of coitus was not impossible and refused the husband a decree of divorce.

Now I want to narrate a singular case that came under my observation some many years ago.

A Mrs. R., consulted me first in 1901 when twenty-nine years of age. She had been married five years and had never been pregnant. Her menses were never very regular and she had gone frequently four months and even once as long as six months, without seeing a period. Now she had seen nothing for five months. However, I discovered all the signs of pregnancy and attended her in her confinement on August 17, 1901. Delivery was difficult owing to the size of the baby who succumbed next day.

She lived in the country and returned to see me only occasionally. She was a woman of considerable bulk, having weighed 97.2 kilograms (fourteen stone) whilst only 1.69 metres (five feet seven and a half inches) in height and she was anxious to be reduced in weight.

In the year 1905 she came to me again. She stated that her last period commenced on May 18, and ended on May 22. She believed herself to be pregnant again and I was able to corroborate the fact. The fetal movements were first felt on October 4, or rather under four and a half calendar months and five days less than five lunar months from the cessation of the last menses. Reckoning according to the usual plan the expected date of confinement was February 23, the two hundred and eightieth day from May 18. Bearing in mind her previous experience she was anxious to come down to town for the confinement and questioned me as to what date it would be safe to put off her arrival. To be on the safe side it was suggested that she should go into lodgings next door to the private maternity home about February 1 and wait there till labour commenced. She arrived in due time and settled down. After a while she became tired of being indoors all day and only taking a little exercise surreptitiously at night. February 23 passed and she began to wonder; she had finished the literature she had provided herself with, but on my suggestion she bought a book on "patience" and a couple of packs of cards.

In March she began to doubt the accuracy of my methods of reckoning and she became intensely bored; fortunately immediately opposite her lodgings lived Signor Agostino Spagetti, the acknowledged expert on the mandolin. She beguiled her weary hours with lessons on that delightful, tuneful instrument. March and April passed away slowly and it was not till May 3, in the early hours that her baby was born. She was in labour only five hours: the baby, a girl, was born naturally and weighed 4.6 kilograms (ten and a quarter pounds). The day of the birth was the three hundred and fiftieth day reckoning from the

commencement or the three hundred and forty-sixth day from the cessation of the menses.

Is there any adequate explanation of these prolonged pregnancies? The one that has always appealed to me is that originally offered by Cederschjöld and amongst recent writers Glaister, of Glasgow (1921) says that it may be considered as the opinion of the advanced gynaecologists of our time. Briefly the theory is that the duration of gestation is not ten lunar months, but the menstrual cycle of any individual woman multiplied by ten. So that a woman might expect her gestation to last two hundred and eighty days ($28 \text{ days} \times 10$), if her cycle returned punctually, as some do (not many, I think, on the whole) on the twenty-ninth day, in other words if, having commenced her period on Monday January 1, she would commence the next on Monday January 29.

Another whose menstrual epoch recurred on Sunday January 28, might expect her pregnancy to last two hundred and seventy and one who went a day beyond the lunar month might expect a pregnancy lasting two hundred and ninety days and so on. Under these conditions my patient should have a menstrual cycle of nearly five weeks. From what she told me she might easily have had this, but her menstrual history, involving such irregularities as have been narrated, could not be relied upon to prove this. With long menstrual cycles and long periods of gestation it is perhaps not to be wondered at that she became pregnant only twice in ten years.

I thought that my case perhaps had beaten a record, but I find reported in *The Practitioner* for 1918 a case of living childbirth three hundred and sixty-five days after the cessation of the last menses and in *The Proceedings of the Royal Society of Medicine*, Volume XV., a case in which a rather small baby (considering its postmaturity) was born three hundred and sixty-one days after the cessation of the last menses and three hundred and twenty-eight days after the last marital intercourse.

Sympathetic Vomiting of the Husband.

In April 1917, I was asked to assist a colleague to clear up a case of abortion in a multipara. I first saw her on the operating table just before taking the anaesthetic and asked a few questions as to dates. She had seen her last period at Christmas and on January 14, had a slight show; a fortnight later there was the additional shock of meeting a lunatic. The abortion did not occur actually till April 14. Cross-examined as to dates, she volunteered the statement that she knew she was pregnant about the middle of January because her husband had nausea at the time and pica. On each of the previous occasions of his wife's pregnancy he had exhibited the same sympathetic symptoms. She first knew of her own condition by her husband's malaise.

Another lady in the private hospital capped this by knowing a man up-country who always knew the moment of his wife's delivery in town.

MODERN DEVELOPMENTS IN OBSTETRICS.¹

By R. F. MATTERS, M.B., B.S. (Adelaide),
F.R.C.S. (Edin.),
Adelaide.

MODERN obstetrics, like other branches of medical science, has developed in divers directions and with your indulgence I hope to mention some which, if not new, may at least be instrumental in reminding you of the progress of this branch of science.

The majority of those present this evening being general practitioners, it seems right that the majority of the developments mentioned should be those of some practical value and that the many new ideas which are of mere academic or experimental interest, might be omitted.

The way in which obstetrics is being recognized as a very important subject has impressed me everywhere. The art of obstetrics is acknowledged in many parts as a scientific entity in no wise of less importance than medicine and surgery. This view is the only sane way of regarding such a subject and as Victor Bonney says: "The scantily diminished yearly mortality (in obstetrics) constitutes a standing reproach to the medical profession." The remedy amongst others is to make obstetrics a subject of importance and not a necessary evil in the curriculum.

Two features which impressed me in Britain, the continental countries and America, are the importance attached to antenatal investigations and to the pathology including both macroscopical and microscopical morbid anatomy.

Antenatal work as demonstrated abroad is a very great factor in obstetrical advancement and when I was in Chicago De Lee, of the Lying-in Hospital, said to me that during the past three years he had not seen one eclamptic convolution, because of the thorough antenatal investigations. Antenatal clinics are a safeguard, allowing a more normal labour and the tendency is to endeavour to regard and treat parturition as the physiological condition which it is, rather than an abnormality to be attacked with violence. By this physiological attitude puerperal troubles are reduced and subsequent gynaecology lessened. Dr. E. S. Morris, in his recent brilliant essay (*THE MEDICAL JOURNAL OF AUSTRALIA*, September 12, 1925) says: "There is little doubt that if Nature exacted the full penalty for every gross act of internatal, natal or postnatal neglect or unskilful treatment, our statistics would be appalling. The fact that so many women survive against tremendous odds is a tribute to our good luck" and I think one might add, to woman's great vitality. One might hope to see antenatal clinics established here, in the near future, where it will be possible for students to investigate the condition of the patients before they come into labour.

STERILITY.

Before entering the more definite obstetrical field you may possibly be interested in the modern atti-

tude towards sterility. The main causes of sterility are divided into four:

- (i.) Hypoplasia in which the uterus *et cetera* are rudimentary.
- (ii.) Aspermia of the husband which so frequently results from scar tissue creating the occlusion of both ducts and following bilateral epididymitis.
- (iii.) Multiple fibromata.
- (iv.) Closure of the Fallopian tubes, usually the sequel to pelvic inflammation.

Hypoplasia may respond to treatment with endocrine elements, provided a correct diagnosis be made, but the treatment by that "shotgun" like pluriglandular method is usually of little avail and unscientific.

Aspermia of the husband should be excluded by examining the semen of the husband which has been retained in a condom.

Multiple fibromata may be the cause or the ovarian cause of the fibromata may be the cause of the sterility; that is the condition in many cases is probably due to ovarian defects which themselves may be responsible for the fibroids. On the other hand submucous fibroids *per se* may so disturb the endometrium as to make it unfavourable to the embedding of the fertilized ovum.

The closure of the tubes is the condition to which I particularly wish to refer now. The patency or otherwise is decided by the method of Rubin and the procedure is as follows:

The patient is placed in the lithotomy position, the administration of an anaesthetic or not depending on the sensitiveness of the patient. A slightly curved cannula (shaped rather like a metal catheter) is passed into the cervical canal until a shoulder of rubber, placed on the cannula five centimeters (two inches) from its curved end, abuts against the external os. In this position it retains the gas which is forced into the uterine cavity during the operation. The free end of the cannula is connected by a rubber tube with Rubin's apparatus and to this also are attached tubes from a manometer and a carbon dioxide gas cylinder. When all is ready the carbon dioxide is turned on until the manometer indicates a pressure ranging between forty and eighty millimetres of mercury. By this time the tubes, if normally patent, allow the gas to pass into the abdominal cavity and this can be detected clinically by the gurgling sound heard by means of a stethoscope placed in one or other iliac fossa. The pressure in the uterus is the same as that indicated by the manometer, for they are in direct communication. If no gas has passed through the tubes by the time that the manometer registers a pressure of one hundred and fifty millimetres of mercury, then the tubes are assuredly occluded. At this stage the patient, if an X ray photograph be taken, may be given the prognosis of a salpingostomy operation. The tube which gives the best prognosis, is the type in which the tube is ballooned, for this indicates that the occlusion is at the ampullary end of the tube. To give the gynaecological treatment in this paper would be

¹ Read at a meeting of the South Australian Branch of the British Medical Association on September 24, 1925.

out of place, but I should like to mention briefly that when a new ostium is made, its closure is prevented by practising this induction of pneumoperitoneum three or four times after the operation, the same procedure being adopted as already described.

DEVELOPMENTS IN REGARD TO ANTENATAL WORK.

In discussing developments which have taken place in the actual field of obstetrics, I might facilitate matters by dividing this field into three groups: Antenatal, natal or pertaining to the period of labour and postnatal or puerperal.

The main lines of investigation in antenatal work are:

(i.) Is there any derangement of the gastrointestinal function or any noticeable hypoplasia or hyperplasia of the ovary or other glands?

(ii.) Is there any pelvic abnormality?

(iii.) Is there any toxæmic condition?

(iv.) In the later months the presentation of the fetus is investigated and an endeavour is made to ascertain the condition of the lower uterine segment and whether there might be *placenta praevia*. The possibility of this condition being present is sometimes indicated by a pulsation of the fornices being more prominent than normal and a boggy feeling being present.

Gastro-Intestinal and Glandular Functions.

It is notorious that women who are pregnant, are usually constipated and that this occurs early in pregnancy before actual pressure is to blame. Starling and Langley pointed out that ovarian secretion produced hormones which helped to regulate the bowel musculature, that loss of this influence produced flaccid constipation and that excess produced spastic constipation as seen in girls at about puberty. The former was termed sympatheticonia and the latter vagotonia. In normal pregnancy in which the ovarian action is reduced, the flaccid type of constipation occurs and owing to stasis flatus is a disturbing factor. According to Halban the treatment is that of giving ovarian extract sometimes combined with *nux vomica*, this latter for its direct effect upon the intestinal muscle.

Ovarian hypofunction may also be noted by overaction of the thyroid both anatomically and physiologically. The reason for this is that probably there is an endocrine balance normally, the ovary, pancreas and parathyroid being a group which counteract the thyroid, pituitary and suprarenal group. When one member of a group is out of action, this allows increased action of the opposing group. Hence, increase of thyroid activity is noticed when the opposing group loses the whole or part of the ovarian support. The same holds with the phloridzin test for pregnancy which is made by injecting 0.12 mil (two minims) of adrenalin into the patient and glycosuria resulting. This is because the extra adrenalin outweighs the already weakened pancreas, that is, its complement, the ovary, is relatively inactive.

The treatment of the thyroid in these conditions is by giving ovarian gland substance and Lugol's solution.

Disorganized hyperfunction is sometimes seen, as in osteomalacia. Excessive ovarian and parathyroid action produces a demobilization of calcium salts which leads to softening of the bones. The condition may be arrested by temporary castration by X rays. *En passant*, I might mention that the inactivity of the ovary is associated with a laying down of calcium salts as seen before puberty and after the menopause. In the former it means increased length of long bones, hence the great length of bones in eunuchs or those of late puberty, for example, Norwegians. The latter is indicated by arteriosclerosis often arising after the menopause, the calcium salts then being deposited in the arterial walls.

Early tendency to abort is thought to be due to lack of luteal influence, the function of controlling the placental growth being attributed to the *corpus luteum*. Early vomiting *et cetera* are probably a combination of luteal and ordinary ovarian inadequacy and this inadequacy tends to upset the general metabolism.

Pelvic Abnormality.

The question of pelvic abnormality should be investigated with a view to acquiring exact knowledge of both bony and soft parts, the bony pelvis being measured as far as possible and the position of the soft parts recognized, so that if a retroverted gravid uterus be discovered it should be carefully watched between ten to fourteen weeks. If any tendency to incarceration or abortion occurs, the condition is rectified by either of the two following methods. In England the patient is placed in Sim's semiprone position and with a tenaculum drawing down the anterior lip of the cervix, the index finger of the left hand, assisted by gravity, endeavours to push the fundus forwards over the sacral promontory, the finger being in the rectum. Once over the promontory, the uterus is maintained in its correct position by a pessary until the sixteenth week when the size of the uterus prevents its resumption of that position.

Graaf, of Vienna, has introduced a method whereby patients, even with adhesions retaining the uterus in the pouch of Douglas, may go through pregnancy in many cases without operative interference. The patient is placed in a moderate Trendelenburg position and a small bag of the de Ribes variety is inserted into the posterior fornix. Into this bag by means of a tube and funnel mercury is run so that the bag lifts the *fundus uteri* because of the weight of the mercury behind it. The patient is left in this position for about an hour, the programme being repeated daily for five or more days. The fundus usually rises eventually above the promontory. Adhesions usually stretch readily during pregnancy owing to the increased vascularity of the pelvic organs.

Towards term pelvic measurements are again made and here it might be mentioned that though

I use a pelvimeter myself, yet I firmly believe that in these later months the fitting of the foetal head into the pelvis is the best indication, except in very small pelvises. The distance of the promontory from the *symphysis pubis* should be noted while the examining finger is in the vagina.

Toxæmic Conditions.

At the Rotunda Hospital, Dublin, the staff regard as toxæmic any condition of vomiting accompanied by albuminuria or elevated blood pressure. These toxæmias are regarded as preeclamptic and the Rotunda treatment is by starvation and elimination. The same treatment is given for actual eclampsia, but more vigorously according to Fitzgibbon.

No food is given for as much as twelve days in some cases, the stomach is washed out with sodium bicarbonate solution, while the purgation is effected by giving *mistura sennæ composita*, an extra four grammes (one drachm) of magnesium sulphate to the dose being added. Colon lavage is also part of the treatment and saline solution is given under the breasts.

If the condition appears to become worse, the advisability of induction is considered. Morphine and other sedatives, according to Fitzgibbon, are not used under any circumstances at the Rotunda school in these cases.

Much the same treatment is carried out at Queen Charlotte's Hospital, London, where, however, *Veratrum viride* has been tried to allay the spasms. Rivett, however, does not consider this addition very advantageous.

Other schools are divided between conservative and operative methods, although the former is that more generally recognized.

At Vienna, Munich and many American centres the Stroganoff methods are used although this is usually preceded by the withdrawal of from five hundred to one thousand cubic centimetres of blood (Lichtenstein), after which the Stroganoff treatment is pursued. If I digress to give a brief outline of these methods, I trust that those who know this treatment so well, will bear with me.

In the Stroganoff treatment after Beck an injection of morphine tartrate 0.015 gramme (one-quarter of a grain) is given hypodermically and two grammes (thirty grains) of chloral hydrate are given in solution *per rectum*. The morphine is repeated every three hours and the chloral every six hours. The best time to administer these is after a convulsion when the patient is less liable to be irritated by this stimulus. The room is darkened, all external stimuli prevented and even the taking of temperature and blood pressure are omitted.

Adler, of Vienna, has published very good results with the Stroganoff method which he modifies by giving glucose *per rectum* and water by mouth, but nevertheless the Rotunda results have been very encouraging. Generally the treatment with hot packs is used very little now.

The operative methods are: (i.) *Accouchement forcé*; (ii.) version and rapid delivery; (iii.) dilation with a de Ribes bag; (iv.) Cæsarean section.

Any or all of these methods, if regarded as the main lines of treatment, are relegated to the dim past except in a few outstanding clinics.

Induction is frequently performed when preeclamptic patients do not respond to treatment by conservative methods. Also patients who are eclamptic and commencing labour, are assisted by a Champetier de Ribes bag being introduced through the cervix and when it is distended with fluid, gentle traction is made in the axis of the pelvic outlet by weight and pulley.

The Foetal Condition.

The foetal condition is investigated in the later months by listening to the heart beats and noting the activity or otherwise of the movements. The position is also noted, whether the fundus contains the breech or the head. Should *placenta prævia* be found one must endeavour to ascertain whether it is central or marginal. If central, the ideal treatment is considered to be Cæsarean section. Rivett, of Queen Charlotte's Hospital, London, and Polak, of the Long Island College Hospital, New York, emphatically state that in their opinion infection alone is the only contraindication to Cæsarean section in these cases.

Farr and other American surgeons do this operation under local infiltration anaesthesia, as they consider that usually the haemorrhage has produced considerable shock and that general anaesthesia would increase it. Weible and Werner, of Vienna, use a spinal anaesthetic of half a cubic centimetre of 10% "Tropococaine." The Rotunda and most English schools use general anaesthesia and make the classical incision. In many parts of America the incision is supraumbilical.

De Lee has introduced a Cæsarean section which is made through the abdominal wall, but which is kept to the pubic region. By stripping the bladder off the cervix toward the pubis and pushing back the peritoneum over the fundus the lower uterine segment is exposed and the foetus is delivered through this area extraperitoneally. This may be made a little clearer if I show some plates which De Lee gave to me; the epidiascope may show these well enough for you to receive some idea of the technique.

Marginal *placenta prævia* is treated by vaginal packs or version and bringing down a leg. The Rotunda staff favour the former and the packing is done after a large speculum has been introduced into the vagina, while the patient is in the lithotomy position. In emergency cases the Sim's semiprone position is very valuable, as this attitude allows the bowel *et cetera* to fall forward, so that on retracting the perineum backward even with two fingers a good view is provided, as the vagina balloons out owing to the entrance of air.

Tweedy, of Dublin, considered that tight pledges of cotton wool were most satisfactory for packing and the method of packing was to pack the fornices tightly so that a collar of pledges was formed around the cervix, after which the vagina was

plugged. The packing must be redone in about twelve hours in order that the patient may micturate, this being almost impossible with a well plugged vagina.

It was considered by Tweedy that this packing so compressed the uterine vessels as to reduce the haemorrhage from the compression alone. In these cases Adler combines this packing with hypodermic injections of pituitrin. He considers that by so doing there is complete dilatation on removing the plug and that the pressure of the presenting part prevents further haemorrhage.

Potter, of Buffalo, that great exponent of version, dilates the cervix, performs version and delivers the patient at the one sitting. At the Rotunda, however, external version is performed first so as to have the leg at hand to draw down immediately after insertion of the fingers into the cervical canal.

Induction of Labour.

Induction is sometimes a necessity either on behalf of the mother or the infant. The methods in modern obstetrics are medicinal and mechanical.

In the former the usual method is as follows: Thirty cubic centimetres (one ounce) of castor oil, followed in two hours by 0.6 grammes (ten grains) of quinine bihydrochloride are given, this latter being repeated hourly for three hours when a hot bath and enema are given; at this stage 0.5 cubic centimetre of pituitrin may be administered.

The mechanical methods are four in number. Laminaria tents are the seaweed tents which when introduced into the cervix absorb moisture and swell and by so doing dilate the cervix. Two or three are usually inserted. In the past they have fallen into disfavour owing to the difficulty of sterilization. Now, fortunately, this has been overcome by boiling in absolute alcohol for ten minutes, after which they may be kept in a jar containing sulphuric ether.

The bougie method is well known, but a modification of this used at the Rotunda Hospital is the introduction of an ordinary stomach tube between the membranes and uterine wall. This done, some sterile fluid may be poured into the funnel end of the tube, thus causing a further separation of the membranes; a further advantage of the tube is that the tube need only be boiled to sterilize it.

I have seen many obstetricians deliberately incise the cervix to produce a more rapid delivery with a rigid cervix and subsequently extract the foetus; when this is done the cervix is sutured. This is frequently performed under infiltration anaesthesia with 0.5 "Novocain" and adrenalin. This type of anaesthesia is very useful for a man who has only a midwife to help him as he can by this method give the anaesthetic and do what he considers necessary without having to move to the head end of the patient and to worry about asepsis so much. Small tablets are sold which can be boiled up in a spoonful of water over a candle.

The needle is inserted while pressure is maintained in the syringe so as to keep a drop of fluid always at the point of the needle and this pushes

the vessels aside; it is stated, therefore, that there is less chance of puncturing a vessel.

Dilatation with Hegar's dilators is sometimes the procedure, after which a de Ribes bag is introduced.

DEVELOPMENTS IN CONNEXION WITH THE PERIOD OF LABOUR.

If I might be permitted to digress for a moment I should like to mention the amusing incident which occurred in Dublin when the Government took over the part of the Rotunda Hospital known as "The Rotunda," for the "Department of Labour."

Dry Labour.

Dry labour, according to Broadhead, of America, will end spontaneously in 75% of cases without great delay of labour. Largely the prognosis depends on the cause. Kolisch states that early rupture of the membranes is usually due to mal-presentation. He does not consider that there are very many true occipito-posterior cases, but he thinks that the majority of so-called occipito-posterior cases are really sinciput-anterior cases and that if the obstetrician flexes the head more by pushing up the brow, the occiput then becomes the leading part and will rotate anteriorly.

In dry labour a de Ribes bag is the most used as it takes the place of the missing "bag of waters" and the head follows the bag down until it is expelled.

Kjelland, of Christiania, has invented some obstetrical forceps with a very slight pelvic curve, long shanks and a sliding lock. These forceps have received a great deal of prominence as they are so suitable in cases of occipito-posterior types which are rather refractory. The forceps are applied much as the normal axis traction forceps. When the head is between the blades and the shanks are locked, the head may be rotated and extracted without removal of the forceps.

Primary Inertia.

Primary inertia is sometimes thought to be the result of hormonal deficiency, there being a lack of stimulus. Certainly one patient whom I saw, appeared to respond within an hour of receiving an injection of ovarian extract.

The Perineum.

Modern views on care of the perineum indicate the necessity for removing forceps when the head shows at the vulva. At this stage, whether forceps are used or not, the head is pushed forwards with the occiput under the *symphysis pubis* by exerting pressure between the anus and the coccyx. By this means, with the addition of suprapubic pressure, the infant may be delivered between the pains and so the sudden assaults upon the perineum are not made by the oncoming head.

Potter to whom I have already referred, makes every case an operative case, as he performs either version or Cæsarean section on every patient and he averages one thousand one hundred cases *per annum*. I mention Potter because of his treatment

of the perineum, but at the same time I shall briefly outline his complete technique.

Wearing rubber gloves which extend to the elbow like these which I show, Potter approaches the anaesthetized patient who is in the lithotomy position. He carefully cleans the external genitals and finally washes around with liquid soap. He then inserts four fingers into the vagina and pours in liquid soap whereupon with a stroking motion, to use his own expression, he "irons out" the *levatores ani* muscles and the perineum. This done, the hand is completely introduced into the vagina and the cervix is gently dilated. The hand next being introduced into the uterine cavity the cord is felt to ascertain that it is not around the foetal neck, the arms are folded across the chest and the two feet are drawn down along the posterior wall of the uterus while with the external hand the head is pushed up into the fundus. The feet are drawn down till the infant "sits on its mother's perineum." Next it is rotated to the right and the left arm and shoulder delivered, it is then rotated still further and the other arm and shoulder are born. Now with the fore and middle fingers on the malar bones, to maintain flexion of the head and with an assistant exerting suprapubic pressure the head is born by sweeping the legs over the mother's pubis. I did not see Potter tear one perineum although several of his patients were *primiparae*. De Lee, of Chicago, on the other hand, says that Potter by his massage separates the levators and that these patients may later develop a rectocoele. De Lee, like many other obstetricians, regards every perineum as a possible site for rupture and in order to avoid the gaping labia, infection and uterine prolapse from loss of the supports in the vaginal vault, he performs episiotomy in every case. Just before the head appears at the vulva and when the perineum is tense, De Lee divides the perineum with scissors with an oblique incision running posteriorly and laterally, this includes the skin, subcutaneous tissue, the *sphincter vaginae* muscle and often the levator muscle. The aftercoming head prevents undue haemorrhage and after the child is born, the wound is sutured at once with figure of eight sutures. In the "follow up" clinics I was able to see the excellent results from this procedure and in some cases I think that it might be justifiable, but generally one is disposed to think that it is better to watch and pray lest we enter into temptation. If the conduct of the case is to be operative, I rather like Potter's method of stretching the perineum first.

Present day opinion is against indiscriminate vaginal examinations being made and the Rotunda method is to decide the stage and position by abdominal palpation, while "masterly inactivity" is the attitude regarding vaginal interference; if some further information be required it is considered that this may be obtained from a rectal examination.

Anæsthetics.

The interesting subject of anæsthetics contains many methods and types of anæsthesia, some requir-

ing cumbersome apparatus, for example, nitrous oxide or ethylene. Here I shall briefly mention: (i.) Spinal anæsthesia; (ii.) rectal analgesia; (iii.) morphine-scopolamine seminarcosis; (iv.) general anæsthesia.

Spinal Anæsthesia.

Those who have investigated spinal anæsthesia most thoroughly, conclude that the obstetrical amount injected should be half the amount required by a non-pregnant patient for a major operation. The obstetric dose is 0.5 cubic centimetres of 10% "Tropococaine" or "Stovain." The technique followed is that of making an ordinary lumbar puncture and allowing about ten cubic centimetres of cerebro-spinal fluid to flow into a sterile glass. Here the fluid is mixed with the 0.5 cubic centimetres of the 10% solution and loaded into a syringe, whence it is slowly injected intrathecally. The patient's head is retained in an elevated position for some minutes as a prophylactic measure against headaches. This anæsthesia does not interfere with the uterine contractions, but the contraction of the abdominal muscles which produces the final *vis a tergo*, is reduced.

Rectal Analgesia.

Rectal analgesia or the method of its production arose from the investigations of Davis and Gwathmey which were made in the New York Lying-in Hospital.

The present technique is firstly the administration of two cubic centimetres of 50% magnesium sulphate solution which also includes 2.5% "Novocain" and 0.0075 gramme (one-eighth of a grain) of morphine sulphate, the complete solution being injected intramuscularly when the patient has pains recurring every three to five minutes and when the cervix is dilated to two fingers' breadth. If there is no relief in twenty minutes (or when pains are lessened, wait until they are again being felt) then repeat the injection and in addition the following mixture should be instilled *per rectum*: Quinine alkaloid 1.2 grammes (twenty grains), alcohol 2.7 mils (forty-five minimi), ether seventy-five cubic centimetres (two and a half ounces), olive oil to one hundred and twenty cubic centimetres (four ounces). Twenty minutes after this give an intramuscular injection as before, but with no morphine. The usual method consists of three injections and one instillation. If labour be prolonged more than four hours the whole programme may be repeated. The administration requires: One one hundred and fifty cubic centimetre funnel, fifty centimetres of rubber tubing, one glass connexion, one French catheter size 20 and a long hypodermic needle.

Before these injections *et cetera* are commenced, the patient should have two or three enemas to endeavour to clear the pelvic colon.

During the analgesia the patient is maintained in quiet surroundings, cotton wool is inserted in the ears and a bandage is applied over the eyes to reduce external stimuli. Manipulations are reduced to a minimum.

The patient is placed in Sim's position for the instillation and the anal region is smeared with

vaseline to prevent excoriation. The catheter is passed in about twenty centimetres (eight inches) to clear the foetal head. Air is excluded from the rubber tube after which olive oil is run in and immediately followed by the mixture, this being gently "milked" in between the pains and then the patient is asked to "squeeze" up the rectum so as to produce retroperistalsis. The catheter is next withdrawn and pressure is maintained with a pad against the anus.

Some patients shout and become very abusive during the labour, but subsequent questioning convinces one that there is no recollection of any pain. The procedure appeals to me as being almost purely a hospital method. It has the disadvantage also of not always being effective and here the disadvantage is felt so much because it is very dangerous to give a general anaesthetic to the recipient of these gluteal and rectal injections.

Morphine-Scopolamine Seminarcosis.

Though morphine-scopolamine seminarcosis is extensively used still, yet the more advanced people have abandoned it. This seminarcosis is not reliable as 14% of patients receive no advantage at all and 25% are termed failures. Again it sometimes produces ill-effects on the foetus, particularly in regard to respiration, it is also regarded as causing retained placenta and *post partum* haemorrhage. The present dosage in general use is: Morphine 0.015 grammie (one-quarter of a grain), scopolamine 0.0006 (one-hundredth of a grain), atropine 0.0004 grammie (one one-hundred and fiftieth of a grain). This is followed hourly by scopolamine 0.00015 grammie (one-four hundredth of a grain). The main indication appears to be when the patient is tired and needs a rest in order to recover some muscle tone or where the cervix is rigid.

General Anesthesia.

Those true obstetric investigators who have tried all types of anaesthesia, appear generally to prefer chloroform. The parturient woman is regarded as a much better subject for chloroform anaesthesia than the normal adult. Much also depends on the administration and Gillespie says that the chloroform anaesthesia should either be given by or else directed by the obstetrician so that it is given just as the uterus commences to contract, so that, "at the acme of the pain the effect is produced, otherwise the patient will be busy sucking in the vapour when she should be holding her breath and bearing down." A Junker's inhaler is very useful for this, especially if the obstetrician has on sterile gloves, as he has only to adjust the mask over the patient's face, hang the chloroform at the head of the bed and cover the bulb of the inhaler with a sterile towel. So when indicated squeezing the bulb a few times will produce obstetric anaesthesia.

Ether is generally reserved for those cases in which signs of toxæmia are present.

Nitrous oxide and oxygen are costly and cumbersome and do not appear to give better results than chloroform and the same might be said of ethylene.

Developments in Regard to the Postnatal or the Puerperal Period.

Post partum haemorrhage and sepsis are the two maternal conditions mainly to be feared. Prophylaxis of course is the ideal in these conditions, but one has often been moved to unscientific utterances when dealing with some condition or other which has developed and which is discussed in textbooks only from the prophylactic standpoint. Therefore I shall merely mention prophylaxis. The prophylaxis that I wish to mention, is that which will often prevent haemorrhage. It is non-delivery by forceps during inertia. Patients should not be allowed to remain in labour so long that the uterine muscle tires, in this case the living ligatures of muscle do not constrict the vessels.

The treatment of the actual condition of *post partum* haemorrhage, if a large amount of blood is lost, is by transfusion with whole blood by the Unger method, after the patient is grouped with a suitable donor. Saline solution is given subcutaneously. The uterus is "rubbed up" and held in contraction by a tight binder over a pad, also a vaginal plug and a "T" bandage to act as support are applied. The limbs are bandaged to prevent the blood which is required in the body from being in the limbs and the head is lowered to prevent syncope. This set here shown is the Unger transfusion set.

Septic patients are treated largely by giving fluids and eliminating toxins. The patient is placed in a modified Fowler's position to promote drainage and to retain the infected area in the pelvis. Douches are regarded as dangerous in most cases. Amongst the prophylactic methods are the attention after the birth of the infant to the labia, early suckling of the baby and the early assumption of a semi-sitting position to allow free drainage of lochia.

Sir Almroth Wright has introduced a method of inoculating a suitable donor with the infecting organisms and on the development of antibodies in the donor transfusing the patient.

The normal patient with intact perineum or sutured laceration has the baby on the beast almost at once. If urine is not voided in twelve hours she is allowed to try to pass it in a sitting posture on a pan containing hot water.

The patient is allowed to sit up in a hair on the fourth day in order to promote drainage but is not allowed to walk about until the uterus disappears behind the *symphysis pubis* about the tenth day.

The introduction of the Ziegler cord clamp which you may see here, appears to be of great value in avoiding umbilical sepsis in babies not properly cared for. The cord separates within twenty-two hours and the results which I saw, were excellent.

If respiration does not occur in the infant, but the heart is beating, I have seen good results by passing a rubber catheter into the trachea and alternately inflating the lungs by blowing and deflating the lungs by pressure of the operator's hands on the thorax. The blowing must not be sufficient to rup-

ture the lungs, however, and it is well to place a hand on the epigastrum to prevent air entering the stomach.

When the infant appears to require help or "boosting," as Potter calls it, Potter withdraws twenty to forty cubic centimetres of blood from either father or mother and injects it under the scapular region.

Depressed fractures are treated in Dublin by forcing the point of one blade of a bullet forceps through scalp and bone, then by elevating the handle the point is directed parallel to the inner table of the fractured bone. Now by raising gently the small curved part of the blade draws the bone up and the depression is rectified. On withdrawing the instrument the puncture wound is sealed with colloidion.

CONCLUSION.

In conclusion, may I indicate here the elbow obstetric gloves, the Unger transfusion set, the Ziegler cord clamp and Polak's cord scissors. I am sorry that some other things which I had hoped to show here, Rubin's tube *et cetera*, are still at the Outer Harbour.

My remarks have been founded on work by other men, their statements and my own observations. If I have appeared to err from the path of popular views, then I must confess my faults and hope that you will be faithful and just to forgive me my sin.

RÖNTGENOGRAPHICAL EXAMINATION OF BASE OF SKULL AND UPPER CERVICAL VERTEBRAE: THE GARGOYLE POSITION.

By H. FLECKER, F.R.C.S.,
Honorary Radiologist, Austin Hospital,
Melbourne.

In the present paper an attempt is made to draw attention to a special method of taking skiagrams of the base of the skull and upper cervical vertebrae, showing a wealth of detail, believed to be possessed by no other well known technique. The position in which these are made, is referred to as the "gargoyle" position and will be described with the technique.

A perusal of the available literature shows that this position is but little known; in fact no repro-

duction of any such views could be found. Robert Knox, however, in an article in *The British Journal of Radiology* (March, 1924, page 92) describes a postero-anterior view of the head stretched over the edge of a table and remarks: "The demonstration is rarely of great value, because of the difficulty in distinguishing the various structures at the base of the skull," but the serious drawback to his work is the omission to take advantage of the use of the Potter-Bucky diaphragm. The skiograms from which these reproductions are made, however, actually do show with a considerable amount of detail the bony and other landmarks at the base of the skull and were all made from living subjects.

Another most essential consideration necessary to the taking of all head pictures is absolute immobility, for even the normal respiratory movements involve to a slight extent the head, tending to serious obliteration of detail in the finished picture. Immobilization is perhaps best secured by a special immobilization device and for this reason the horizontal position is to be preferred to the vertical.

The patient lies on the Potter-Bucky diaphragm face downwards, with the arms fixed by grasping some objects at the sides. The upper part of the chest and front of the neck lie

as close as possible to the surface of the trough. The chin is stretched upward as far as possible. It is this characteristic attitude which has suggested the name "gargoyle" position, and is designed for the purpose of placing the chin forward clear of the basi-occipital and basi-sphenoid regions, so that even the posterior edge of the vomer may be exposed behind the shadow of the *symphysis menti*. Incidentally the mandibular rami are drawn well forward clear of the greater wings of the sphenoid.

Stereoscopic views are desirable not alone for the view in three dimensions which one obtains in the stereoscope, but also because slight differences of angle at which the exposures are made may show up more or less clearly different features on each film if these are examined separately. It will, of course, be understood that one would not expect to get the best view of every structure within so wide a region from a single skiagram taken at a single fixed angle of the central ray relative to the axis of the base of the skull.

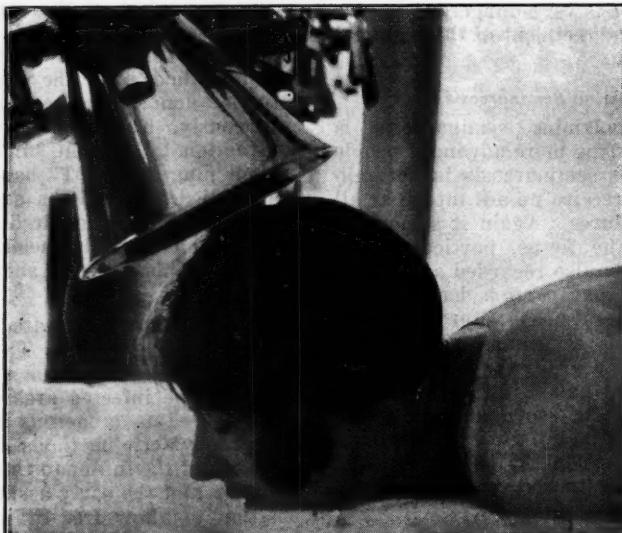


FIGURE I.—The "Gargoyle" Position.

The illustration shows a subject in the "gargoyle" position. It will be noted that the central ray makes an angle of about 35° with the vertical.

A study of Figures II. and III. shows an unusual view of the frontal air sinuses and also of the antra of Highmore. On each side the whole of the (1) zygomatic arch can be seen as well as the (2) temporomalar joint. The characteristic outlines of both the (3) coronoid processes and (4) condyles of the mandible are seen in relation to the rami of the mandible, from the mesial surface of which can be seen the (5) lingulae and (6) inner openings of the mandibular foramina.

The posterior edge of the (7) vomer, with the (8) choanae on each side can be traced to the easily recognized, (9) rostrum of the sphenoid which is seen to lie in front of and partly to underlie the sphenoidal air sinus. On each side, (10) inner and (11) outer pterygoid plates and intervening (12) pterygoid fosse are well shown. A particularly striking demonstration of the (13) *foramina ovalia* and (14) *spinosa* is obtained behind the outer pterygoid plates.

The (15) basi-sphenoid and basi-occipital bones are seen between the (16) *foramina lacera*, whilst running across the former the (17) *dorsum sellae* forms a well defined crescentic shadow. At the apex of the dense petrous bone one can recognize the (18) carotid canal, whilst starting from the same points the (19) lateral sinuses can be followed behind the petrous portion of the temporal bone right round the occipital bone to their termination at the (20) *torcula Herophili*.

The whole of the (21) posterior fossa of the skull can be demonstrated from this position.

In taking skiagrams of the upper cervical vertebra it has been customary to make the exposure through the open mouth, but such a view has practically no advantage over the "gargoyle" position. The view of the former method is much more restricted and might be preferred only when for various reasons the adoption of the "gargoyle" position is impracticable or impossible. The former view is antero-posterior, whilst the latter is the reverse.

A view of the entire (22) arch of the atlas is seen, whilst the (23) vertebral foramina passing through the lateral masses are very clearly defined. The body and (24) odontoid process of the axis are silhouetted against a background which corresponds to the (25) *foramen magnum*.

In fine, a method is devised which it is believed will be of immense practical value in elucidating many pathological lesions in a region which hitherto has been extremely difficult to examine satisfactorily by röntgenological methods.

Summary.

A very simple method is devised showing many important landmarks at the base of the skull and upper cervical region previously undescribed or at any rate very little known by what is called the

"gargoyle" position. The essential features of the technique are:

1. Use of the Potter-Bucky diaphragm.
2. Complete immobilization of the head.
3. Removal of mandible by thrusting chin as far forward as possible.
4. Exposure from above, not the reverse.

Reports of Cases.

POLIOMYELOENCEPHALITIS TREATED SUCCESSFULLY BY HUMAN SERUM.

By REX HYLTON, M.B., B.S. (Melbourne),
Resident Medical Officer, Children's Hospital, Melbourne.

Clinical History.

THIS patient was a boy, G.W., aged nine years, who was admitted to the Children's Hospital on July 14, 1925, with the following history.

Except for a "common cold" of a week's duration the child was quite well until twenty-four hours before admission, when he complained of pain over the right side of his forehead and it was noticed that he ate a very small evening meal. He went to bed early and soon after midnight (approximately five hours later), he awoke in a convulsion which lasted for about five minutes. During this time his face, arms and legs were twitching and he passed urine into the bed. After this convulsion he vomited on three occasions and had not spoken; he could be roused somewhat but only with difficulty, had a very vacant expression in his eyes and seemed quite unable to use his right arm or his right leg. For the twenty-four hours before admission the child had taken no food, his bowels had not moved and he had passed urine frequently.

On inquiry into his previous history it was found that he had had measles without complications when he was two years old, pertussis without complications at three years of age and was subject to occasional common colds.

In regard to the family history father and mother were both living and quite healthy. There were no other children in the family. The mother had had one miscarriage ten years previously.

On admission the child's temperature was 38.3° C. (101° F.), the pulse rate was 116 and the respiratory rate 28 in the minute. Inspection revealed a well developed boy lying on left side with his legs and arms flexed. He resented being moved to the dorsal decubitus. When he was moved on to his back, however, his head and eyes deviated to the left side and a paresis of the muscles of the right side of his face was quite obvious. His mouth was held partly open, his breath was offensive, his teeth were covered with sordes and his tongue was furred.

There was nothing abnormal to be detected in his cardio-vascular or respiratory systems.

The abdomen was slightly retracted and not easy to palpate. The left rectus muscle was more resistant than the right.

The liver and spleen were not enlarged.

The right arm was quite flaccid and paralysed, with the exception of the biceps muscle which was spastic. The left arm was apparently quite normal. He was able to move both lower limbs, though the right moved very sluggishly.

The child was in a semi-stuporose condition; his head and eyes were persistently deviated towards the left side.

No nystagmus was present. The pupils were equal and briskly responsive to light stimulation.

Right facial paresis was present.

Of the deep reflexes the triceps and wrist jerks of the right arm were absent, while the biceps jerk was present. All reflexes were elicited in the left arm. The right knee jerk was hyperactive and the right ankle jerk normal. The deep reflexes in the left leg were all normal.

Of the superficial reflexes the right superficial abdominal was completely absent, whereas that on the left side was briskly active. The right plantar reflex was persistently extensor in type. There was nothing abnormal as regards sensation as far as could be detected.

Eight hours after admission a lumbar puncture was performed and twenty cubic centimetres of clear cerebrospinal fluid were withdrawn. No increase in pressure was noted. A test for globulin revealed no appreciable increase in amount. Microscopical examination revealed an increase in lymphocytes here and there an epithelial cell. No organisms were seen and a culture of the centrifuged cerebrospinal fluid revealed no growth of organisms.

From the above clinical findings and the result of the examination of the cerebrospinal fluid the condition was regarded as one of acute polioencephalitis.

Progress Notes.

On the third day after coming into hospital the boy was in just the same condition as when he was admitted, except that he could be roused more easily and he would answer "yes" or "no" to questions. The nervous system findings and the paralyses of the right arm, right side of the face and the muscles of the right side of the abdomen still persisted.

A lumbar puncture was again performed and thirty cubic centimetres of opalescent cerebrospinal fluid were removed under apparently normal pressure. Examination of this fluid revealed a definite increase in globulin with a greater increase in the number of lymphocytes per field (one hundred and thirty to one hundred and forty).

Fifteen cubic centimetres of serum from a patient convalescent from infantile paralysis were inserted into the spinal theca. Five cubic centimetres of human serum were also inserted into the median basilic vein. The serum used was a Group I. type and no reaction of any kind was noticed.

On July 17, 1925, the next morning, twenty-four hours after the serum therapy, the patient's temperature had fallen from 38.3° C. (101° F.) to 36.4° C. (97.6° F.), he was more intelligent of his surroundings, would speak more clearly and distinctly and he was able to move his right arm and had lost his desire to deviate his head and eyes towards the left.

In the afternoon his temperature rose to 37.2° C. (99° F.) and his improved condition remained the same.

On July 18, 1925, lumbar puncture was again performed and thirty-five cubic centimetres of opalescent cerebrospinal fluid were removed under normal pressure. Then fifteen cubic centimetres of Group III. and ten cubic centimetres of Group II. serum from a convalescent patient were inserted intrathecally.

On the following day he was able to use his right arm much more freely, though he was still very ataxic. His right facial paresis was still present, though much less noticeable. The right superficial abdominal reflex was now active, though not briskly so.

The right plantar reflex was still extensor in type and of the deep reflexes nothing abnormal could be detected in the arms or legs. His temperature was 36.7° C. (98° F.) and remained so all that day.

As the improvement was so complete and there was no pyrexia the child was not given any more serum on the next day. From then onwards his condition gradually improved.

On July 20, 1925, he was much better, was taking solid foods, the right arm was controllable, but he was still ataxic. Bladder control was normal. The temperature was below normal all day.

On July 21, 1925, the right facial paresis was less prominent. The right superficial abdominal reflexes were elicited with difficulty. All deep reflexes were obtained, though with difficulty in the right arm. Both plantar reflexes were flexor in type.

On July 23, 1925, the patient sat up in bed. The facial paresis was just discernible. The right arm was less ataxic. He did not have to be fed.

On July 27, 1925, he sat out of bed, was able to walk quite well and was quite intelligent.

On July 30, 1925, he was apparently quite normal in every way. All the limbs were under perfect control. No ataxia was present. The right hand grip registered fifteen kilograms weight. The left hand grip registered thirteen kilograms weight.

On July 31, 1925, he was discharged.

Comment.

I report this case as being of interest because:

- Twenty-four hours after the administration of serum the child became apyrexial and showed definite signs of improvement.

- The improvement became more pronounced and the temperature persistently lower after the second injection of serum.

- The actual absorption of serum from a convalescent patient did not, as Amoss and Chesney have found, cause any untoward reaction, such as cerebral irritation or respiratory upset, to the patient.

4. The question might arise as to whether or not the boy was due to become apyrexial and suddenly became well on the day following the serum therapy.

5. The presence of a hyperactive right knee jerk, an extensor plantar response and an ankle clonus all on the right side point to there being some upper motor neurone involvement, whereas the flaccid right arm and absent superficial abdominal reflex support the true lower motor neurone involvement of anterior poliomyelitis.

The serum used was that as supplied by the Commonwealth Serum Laboratories who are at present working in conjunction with the Melbourne City Council in connexion with poliomyelitis.

Serum from Groups I., II. and III. was utilized. Group I. serum was derived from the blood of victims of anterior poliomyelitis within six months of the initial onset of the disease, Group II. serum from patients within twelve months of the initial onset of the disease and Group III. serum from patients within a period of five to ten years after the initial onset of the disease.

Acknowledgement.

I am indebted to Dr. Stewart W. Ferguson for permission to publish this case and to the Commonwealth Serum Laboratories for their promptness in supplying serum.

Reviews.

REVIEW OF PEDIATRICS.

THE volume on paediatrics of the "Practical Medicine Series for 1924" appears for the first time without an accompanying section on orthopaedics.¹ The editor explains that the popularity of and increasing demand for these volumes have made it possible to give paediatrics a greater number of pages and a more complete review of the year's progress. It is of importance that the general practitioner should have access to a volume which contains in brief form the best collection of information and which reflects the year's progress in this subject. Here are to be found abstracts of the most important articles which have appeared in the journals of all countries. In addition the reader has the advantage of the editor's comments which vary from short criticisms to remarks such as "It may be good; time will show" in reference to the treatment of celiac disease with a diet of bananas. The abstracts are collected under headings such as "Diseases of the Newly-Born," "Gastro-Intestinal Diseases" *et cetera*. The references are clearly arranged and the illustrations good. The "Practical Medicine Series" is well known and this volume is quite up to the standard in the amount of useful information it contains. It should be on the book shelves of every practitioner who wishes to keep himself abreast of the times in his knowledge of the diseases of children.

¹"The Practical Medicine Series, Comprising Eight Volumes on the Year's Progress in Medicine and Surgery," under the General Editorial Charge of Charles L. Mix, A.M., M.D.; Volume IV.: Pediatrics; Edited by Isaac A. Abt, M.D., with the Collaboration of Johanna Heumann, M.D.; 1924. Chicago: The Year Book Publishers. Crown 8vo, pp. 381. Price: \$2, and of the Series of Eight Volumes, \$15.

The Medical Journal of Australia

SATURDAY, DECEMBER 12, 1925.

Coming into Line.

THERE are six States in the Commonwealth of Australia. In addition there is the Federal Capital Territory. If a medical practitioner wishes to practise in any part of this great Commonwealth, he must seek registration as a legally qualified medical practitioner under the special law of the State in which he proposes to live. Before the war the provisions of the six *Medical Acts* were highly unsatisfactory. The Federal Committee of the British Medical Association in Australia found it advisable in 1914 to appoint a subcommittee to consider the matter and to draft provisions for the whole of Australia which would be acceptable. A draft was prepared, but was not adopted by the Committee. In 1915 amending bills were introduced into the New South Wales and Victorian Parliaments and became law. In both new acts the eligibility for registration was restricted to those who graduate in our own Universities, to those who hold degrees or diplomas entitling them to be registered in the United Kingdom, and to those who hold degrees or diplomas entitling them to practise in the country in which the degrees or diplomas were issued, provided that reciprocal privileges are extended in that country to Australian medical practitioners. In the New South Wales *Act* a special clause was inserted excluding all German or Austrian subjects or persons who hold only a German or Austrian degree or diploma, from the medical register. The New South Wales *Act* differs further from the Victorian *Act* in that the Medical Board is specifically empowered to deregister a medical practitioner for "infamous conduct in any professional respect." In the Victorian *Act* there is a clause entitling one practitioner holding the certificate of the Boston Homeopathic University or of the New York Homeopathic Medical College and Hospital to be registered each year, for the

purpose of serving as resident medical officer at the Homeopathic Hospital in Melbourne. In 1919 a new *Medical Practitioners Act* was passed in South Australia. The provisions as far as the qualifications for registration and as far as the disciplinary powers of the Board are concerned, are practically identical with those of the New South Wales *Act*, but in South Australia an annual registration fee is required; in New South Wales no such fee is payable.

The *Medical Act* of Western Australia was introduced in 1894. There is no reciprocity clause and no restriction. The *Medical Act* of Tasmania of 1918 cannot be taken seriously. As is well known it was the reply of an irate Government to the combined action of the medical profession concerning the conditions of medical service in the public hospitals of the State. Queensland in the meantime limped wearily along under an antiquated enactment bearing the date 1867. On November 12, 1925, this old *Act* was repealed by the passing of a modern piece of legislature. The new *Medical Act* contains provisions for the registration of medical graduates of the universities of Australia and New Zealand and of those who are registered or are entitled to be registered in the United Kingdom and of those who have received a diploma, degree or licence after having passed through a course of study of not less than five years' duration in any country in which British medical practitioners are permitted to practise in virtue of their British qualifications. The Medical Board is empowered to erase the name of a practitioner from the register for "infamous conduct in a professional respect," but the clause is modified by the following explanatory subclause:

The expression "infamous conduct in a professional respect" does not include any conduct which either from its trivial nature or from the surrounding circumstances does not in the public interest disqualify a person from practising his profession.

The wisdom of this explanation may be questioned, since without it "infamous conduct in a professional respect" would have to be interpreted in accordance with the findings of the General Medical Council in the United Kingdom. Another clause that should be mentioned, is that which empowers the registrar to remove the name of a

medical practitioner who fails to reply within six months to a notice sent to him by post requiring him to state whether or not he has changed his address. One section of the *Act* deals with the establishment of a school of anatomy in the State. Reference to this part will be made in a subsequent issue. There is to be an annual fee for the registration of medical practitioners. The amount of the fee is not fixed by the *Act*, but will be determined by the Board with the approval of the Governor in Council. The Board has power to make its own by-laws.

The passage of the *Medical Act* of Queensland marks a step in the right direction. Its provisions are admirable. During the debate on the first reading of the bill and when the measure was considered in committee exception was taken to the appointment of the five members of the Medical Board by the Governor in Council. It was held that the medical profession should select the members. The idea that the medical profession should appoint a medical board is a novel one. It would be advantageous, but the more usual method of entrusting the selection to the Governor rarely leads to the inclusion of a member who is either unsuitable for the tasks or unacceptable to the medical profession as a whole. It should, however, be remembered that the medical profession has direct representation on the General Medical Council in Great Britain.

We now have four good *Medical Acts*, one indifferent one and one bad one. But there is, as will be gathered from the foregoing, much divergence in the provisions of the four good *Acts*. There is no logical reason why there should be more than one act in the Commonwealth in regard to the registration and disciplinary control of medical practitioners. A doctor moving from one State to another should be able to practise without further formalities beyond that of notifying the registrar either in the State in which he has practised or in the State in which he intends to practise, of his change of address. It should be impossible for a medical practitioner registered in two States to have his name removed from the one register after the Medical Board has found him guilty of "infamous conduct in a professional respect," while the Medical Board of the second State has no power of

deregistration. During the past ten years there has been a tendency toward uniformity in regard to this matter, but only a tendency. We are convinced that there is only one way to deal with this matter in the interests of the community and of the medical profession. That way is for the States to relinquish their sovereign rights and for the Federal Parliament to pass one medical act for Australia.

Current Comment.

GIARDIASIS ENTERICA.

Not many years ago the medical profession in Australia was deeply interested in the possibility of the introduction and spread of *Entamoeba histolytica* by returned soldiers. The seriousness of amebic dysentery justified this interest. Many references to the disease and to its protozoal cause are to be found in the pages of this journal. Fortunately there has been no large outbreak in the Commonwealth. But while the attention of the profession was engaged in connexion with this intestinal protozoon, very little notice has been taken of another apparently common and harmful intestinal parasite. In 1859 W. Lambi discovered a flagellate in the intestinal canal of children in Prague. He came to the conclusion that it belonged to the genus *Cercomonas*. He did not associate the flagellate with any disturbance of health. As is quite common in the history of protozoa, bacteria and other parasites, this invader of the human intestine was rediscovered several times by independent observers and received from them several distinct names. In 1902 C. W. Stiles came to the conclusion that it would be advisable to recognize the work of the original discoverer and consequently proposed to call it *Lamblia duodenalis*. It appears that in 1882 Künstler found an identical flagellate in the small gut of tadpoles and introduced the name of *Giardia enterica* which was accepted. There has consequently been a movement within the last five years to replace the name *Lamblia* by *Giardia*, a change likely to cause confusion. In view of the fact that the affection produced by the flagellate is usually called *giardiasis enterica*, we have selected this term.

Infestation by *Giardia enterica* was at first held to be limited to tropical and subtropical regions. During the past ten years, however, the flagellate has been found by no means infrequently in temperate climes. Dr. B. B. V. Lyon and Dr. W. A. Swalm have collected records of no less than three thousand two hundred cases and suggest that the frequency of the infestation will be found to be much greater than would appear from the existing records.¹ A very interesting article on some Eng-

¹ *The American Journal of the Medical Sciences*, September, 1925.

lish investigations was contributed by H. B. Fathem and A. Porter in *The British Medical Journal* in 1916. The only record that has been published in this journal is one by H. Hastings Willis on December 29, 1923, in which he deals with the distribution of protozoal cysts in the intestinal contents of the urban and suburban community of Townsville. Specimens of faeces of four hundred and forty persons selected in such a manner as to be as representative as possible yielded the information that *Lamblia intestinalis* (*Giardia enterica*) was present in 19%. If the specimens were actually representative, the number of infestations in Townsville would be nearly two thousand.

Drs. Lyon and Swalm have come to the conclusion that the living vegetative forms of the protozoon are found much more frequently if sought in the contents of the duodenum than if sought in the faeces. They have invited medical practitioners in Philadelphia to examine the aspirated duodenal contents and have received information from them concerning forty-one persons in whom *Giardia* was found in this manner. They suggest that giardiasis is transmitted chiefly by the ingestion of cysts. It has been demonstrated that house flies can convey cysts to food. Dust is held to contain cysts at times and this dust may contaminate food and water. *Giardia* cysts have been found in the secretion of bronchiectasis. In these circumstances it is supposed that the cysts have been inhaled. The authors express the opinion that the spread by rodents is unlikely. The species of *Giardia* infesting rats and mice is said to be distinct from the species in man.

The most important point in connexion with infestation by *Giardia enterica* is whether the parasite can produce gastro-intestinal changes and symptoms and if so, in what way these changes arise. It appears that it has a predilection for the duodenum and jejunum. It attaches itself by means of its sucker-like peristome to the mucous membrane and may penetrate the deeper glandular layers. Considerable mechanical damage to the duodenal mucosa has been noted and described. Drs. Lyon and Swalm believe that the constant irritation produces a catarrhal condition and even an inflammatory oedema. When the swelling is in the neighbourhood of the ampulla of Vater obstruction to the flow of bile may result. This is manifested by jaundice. There seems to be some evidence in favour of the view that the minute wounds produced in the mucosa are very liable to bacterial infection. Duodenal ulcer is said to have arisen from such a beginning.

In order to decide whether giardiasis is associated with disease of the biliary tract, they have collected all the available evidence. Eighteen of their own twenty patients had signs of disease of the tract. Other observers have also noted a similar state of affairs. On the other hand they point out that 80% of 798 patients had one or other form of disease of the biliary tract and only twenty of these patients harboured *Giardia* in their duodenal contents. While there is no definite histological evidence that the flagellate itself invades the gall

bladder, there is some highly suggestive clinical evidence that such an invasion occurs. It is by no means uncommon for the protozoa to disappear from the duodenal contents for weeks or months and then to reappear. Moreover when they reappear, they are often found in what is known as the gall bladder fraction of the aspirated contents, especially after stimulation with magnesium sulphate.

The symptoms of giardiasis seem to be somewhat indefinite. Drs. Lyon and Swalm have found that diarrhoea is uncommon in adults, although it occurs in children, especially during the acute stage. This is not in accord with the usual teaching, but it is probable that the majority of other observers have noted the diarrhoea chiefly in children and further that they have not often had the opportunity of studying pure infestations with *Giardia enterica*. In the next place pain in the upper segment of the abdomen is common. Sometimes the patients complain of pain combined with a sinking sensation. Distension occurs in many patients, while nausea, vomiting, flatulence and the like are common symptoms. There may be headache, dizziness, vertigo and restlessness. Loss of weight has been observed. Although it has been stated by some clinicians that giardiasis occurs in persons with a lowered acidity of the gastric secretion, Drs. Lyon and Swalm found among fifteen patients hyperacidity in eight, normal acidity in three, subacidity in three and anacidity in one. Macroscopically detectable blood in the faeces is rare, but occult blood in the gastric, duodenal and rectal contents is noted in practically every patient. When there is no diarrhoea, the stools are usually large and greasy, the result of a deficient output of pancreatic enzyme. The composition of the blood is little altered. It is particularly to be noted that eosinophilia is not common and when it occurs, it is not severe. The condition differs in this respect from other forms of intestinal parasitic infestations.

The treatment of the condition is disappointing. The number of drugs recommended is very large. This in itself suggests that none is of real value. The authors cite the history of cases to show how unreliable are all forms of treatment. They have used biliary drainage with the introduction of magnesium sulphate into the duodenum and state that this drug appears to have the power of immobilizing the flagellates. It obviously does not reach those situated in the biliary channels. Duodenal lavage and medication with thymol, neo-arphenamin, β naphthol, guaiacol, "Dimol" and "Silvol" all have been followed by apparently satisfactory results, but relapses are common and all these drugs fail in many instances.

In view of the experience of Drs. Lyon and Swalm and of others who have searched diligently for *Giardia enterica* both in the stools and in the evacuated contents of the duodenum, in temperate as well as in hot climates, a systematic investigation should be instituted in many parts of Australia to determine the incidence of this form of infestation.

Abstracts from Current Medical Literature.

SURGERY.

The Surgery of the Gall Tract.

WILLIAM HAGGARD (*Surgery, Gynecology and Obstetrics*, July, 1925) deals with some debatable points in the surgery of the gall tracts. One of the most difficult questions to decide is to establish the indication for removal of the gall bladder. In the majority of calculus conditions and as a rule in cholecystitis without demonstrable stone the better results are given in favour of removal. Gall bladder focal infection is an important local factor for such systemic infection as cardiac diseases, chorea, hypertension, angina, the arthritides and certain forms of muscular rheumatism. The relation between gall stones and appendicitis is uncertain. Moynihan and Mayo urge its importance. There appears to be no doubt concerning the fact that pancreatitis accompanies gall stone formation. Acute pancreatitis resulting from stone in the ampulla of Vater, allowing the retrojection of bile direct through the duct of Wirsung, causes the most dramatic syndrome in medicine. The gall bladder should not be removed if there has been any jaundice or other evidence of common duct obstruction in this condition. The bladder is useful to sidetrack the bile to the duodenum. It is now generally recognized that chronic biliary cirrhosis is a result of stone in the common duct and gall bladder infections as described by Adami. Hepatitis is frequently associated as a primary condition and reaches the gall bladder by lymphatics. The relationship between gall bladder disease and glycosuria has been accepted. Rosenthal's test of liver function is of real value. The value of X ray findings for conditions round the liver, gall bladder and bile passages allows of much argument and speculation and the results are disappointing. Nothing is superior in diagnosis than a well taken and considered history. The rarity with which patients die from acute cholecystitis when left alone, should compel the surgeon to avoid operation in the acute stages; this is notoriously dangerous. The only exception is the acute gangrenous type and even in this it is better if possible to wait for adhesions to form and to operate after two weeks. The preparation of jaundiced patients for operation is most important. It is wise not to remove the gall bladder while a patient has jaundice as drainage is very essential both by the gall bladder and by an independent tube down to the common duct. In the bad cases the gall bladder should be drained and the common duct stone left till a second operation as urged by Crile, as in prostate obstruction. Decompression is indicated in both.

The Treatment of Burns.

EDWARD C. DAVIDSON (*Surgery, Gynecology and Obstetrics*, August,

1925) writes on the various phenomena associated with extensive burns and the place and advantages of tannic acid as a therapeutic agent in the treatment of burns. The reaction of the body to a burn strongly resembles the clinical state described by the term "toxaemia" which implies the presence in the circulation of some toxic agent. The more serious lesions produce early in the course a clinical picture of shock or exhaustion. There seems to be something especially harmful in a superficial burn. There is certain convincing evidence that suggests the formation at the site of the burn of a toxic substance, the absorption of which is responsible for the constitutional reaction. The rational manner of treating and combating the toxæmia lies in some form of local treatment which would prevent the absorption of autolytic products of protein decomposition. This may be accomplished by arresting the autolytic process, by removing the products of decomposition by mechanical means or by baths, by slowing the absorption of toxins by the use of vaso-constrictor drugs and by causing a local coagulation of all devitalized tissue. All these methods have been tried with some degree of success and the author elaborates on the fourth method by the use of tannic acid. As soon as the patient is seen, he is given a hypodermic injection of morphine sulphate (0.015 gramme) to alleviate the intense pain. The burned area is then covered with dry sterile gauze pads, which are soaked with a 2.5% aqueous solution of tannic acid freshly prepared. Bandages are then applied. At the end of twelve, eighteen and twenty-four hours parts of the area are inspected and as soon as it has assumed a light brown colour the dressing is removed. The wound is thereafter exposed to the air, but is carefully protected from mechanical, thermal and bacterial injury by a suitable cradle draped with sterile linen. In serious cases artificial heat has been supplied by placing therein electric light bulbs. It is essential to introduce fluid into the patient by all the usual ways. The result of such dressing has been the alleviation of pain, the combating of toxæmia and the promotion of better and smaller scarring as a scaffold is provided for young epithelium.

Surgery of the Thyroid Gland.

J. H. GARBERSON (*North-West Medicine*, September 10, 1925) has delivered a résumé of the present state of knowledge of thyroid surgery in which he claims that the mortality not being as high as formerly, surgical treatment for certain types of goitre is the ideal form of treatment, the operative interference being, however, only one step in the handling of the patient. Plummer's list of diseases of the thyroid gland which may be treated surgically, is accepted. It comprises diffuse colloid goitre, adenoma without hyperthyroidism, adenoma with hyperthyroidism, exophthalmic goitre, thyroïditis and malignant disease of

the gland. Two or more of these may occur combined in the one patient. The colloid goitre should not be removed except when associated with adenoma or when it fails to respond to iodine treatment. Indications for operation in non-toxic adenomata are cosmetic reasons, pressure symptoms and possible malignant degeneration. The author advises removal of practically all nodular goitres without hyperthyroidism. Adenoma with toxic symptoms demand the estimation of the renal and cardiac functions as well as a study of the basal metabolic rate combined with a general clinical study of the patients. Preoperative treatment is often of greater value than in the exophthalmic group, which must be considered separately. Here preliminary treatment with rest, fluids, digitalis, a high carbohydrate diet and Lugol's solution should be employed, although the results of such treatment are transient. Repeated observations of the basal metabolic rate and even preliminary ligation of the superior thyroid arteries on one side are sometimes necessary. These patients stand the operation much better in cool weather than in the height of summer. The technique of the operation is standardized. A preliminary hypodermic injection of morphine and atropine and at times of scopolamine are usually required, to be followed by either general or local anaesthesia. If ligation of one superior thyroid artery is not sufficient, it is sometimes advisable to tie the same artery on the opposite side. Thyrectomy means bilateral, partial lobectomy with removal of the pyramidal lobe, if present; a collar incision is employed. The author calls attention in regard to technique to insure perfect haemostasis, avoidance of damage to the recurrent laryngeal nerve, to the trachea and the parathyroid bodies with drainage in all cases. Post-operative care consists of rest with morphine, cold sponging and even iodine if there is much reaction. The mortality is small and the end results are commensurate with the damage incurred before operation by thyrotoxicosis.

Abdominal Endoscopy.

OSCAR E. NADEAU and OTTO F. KAMPMAYER (*Surgery, Gynecology and Obstetrics*, September, 1925) publish the results of a series of experiments dealing with endoscopy of the abdomen or abdominoscopy. They trace the literature of the subject back and find that the operation was first carried out successfully twenty-five years ago by Kelling, of Hamburg. The authors were stimulated by suggestions from the late A. J. Oschner to carry out research and experiments and have had such success that they consider it a relatively safe and simple procedure which is not utilized as frequently as it deserves to be. The original technique of Kelling has been very slightly modified by subsequent work. It consists in producing a preliminary pneumoperitoneum, passing

a trocar through the locally anaesthetized abdominal wall and on its withdrawal leaving in place a flexible and airtight sheath. This cannula then permits the introduction of any type of cystoscope preferred by the observer, either straight or curved and adapted for either direct or indirect vision. The authors state that an excellent view may be obtained of the interior of the abdomen particularly in the region of the stomach, liver and bile tracts and in the pelvic region. All the usual operative and therapeutic measures performed with the guidance of the cystoscope in the urinary bladder may be carried out in the abdomen. Peritoneal adhesions, of course, form the chief drawback to the employment of the method, but the authors feel confident in recommending the method for clinical as well as for experimental use for those familiar with cystoscopy. They publish histories of cases investigated by them with photographs showing the methods of examination as well as the appearances, normal and pathological, seen through the cystoscope.

Benign Tumours of the Stomach.

KARL A. MEYER and WILLIAM A. BRAMS (*Surgery, Gynecology and Obstetrics*, September, 1925) report a series of non-carcinomatous tumours of the stomach, comprising one myofibroma, two polypi, one adenoma *en rappe*, one hypertrophic pyloric stenosis in an adult and also some inflammatory conditions such as syphilis of the stomach and inflammatory pancreatitis associated with chronic peptic ulcer. As they claim that operation is the only treatment except in syphilis of the stomach that will cure the patient, it is very important that the tumours should be recognized. Radiology has helped in this; even syphilis may require surgical interference if the symptoms of obstruction are severe or if detectable stenosis has developed. Non-malignant tumours of the stomach as of other organs and tissues, may undergo malignant degeneration and early radical removal is the best method of preventing this. This is especially true of the polypi and myomata. The latter may also cause severe hemorrhage or occlusion of the pylorus and duodenum with alarming symptoms. Early recognition of these benign tumours of the stomach is therefore necessary as surgical treatment may not only cure the conditions, but also prevent the occurrence of serious complications.

Rhinophyma.

J. GRATTAN (*Surgery, Gynecology and Obstetrics*, July, 1925) writes that he had the opportunity of performing an impromptu operation and as the result of the success achieved, he has formulated a plan for the improved treatment of rhinophyma. It relieves the associated hypertrophy and reduces the operative scars to a state of invisibility. Rhinophyma is a condition curable by surgery, radiology and trichloracetic acid (triple tech-

nique). The older method of decoration and skin grafting from a distant site seems no longer necessary and does not give the satisfactory results outlined in the series of cases given. The disfigurement due to these growths is a personal, social and physical handicap to the unfortunate patient, who deserves to have the benefit of an attempt at radical cure. Gradual destruction of the growth by the high frequency current is a laborious task compared with operation. The use of flaps gives a satisfactory primary result without the necessity of secondary skin grafting. The postoperative use of X rays and trichloracetic acid reduce the irregularities of the skin and reduce the scars almost to invisibility.

Osteochondritis of the Vertebral Body.

JACQUES CALVÉ (*Journal of Bone and Joint Surgery*, January, 1925) records two cases which were believed to be Pott's disease. The first was in a child, two and a half years of age, in whom pain appeared in the back, stiffness and a small kyphosis in the thoracic region which rapidly increased. Under treatment the kyphosis disappeared. Abscess formation did not threaten at any time nor were there any symptoms suggesting compression of the spinal cord. The child recovered without deformity. The second case was in a child aged seven years. The usual symptoms of early spinal tuberculosis were present. There was disinclination for prolonged play and later sensitiveness to all movement, night cries, spasm with rigidity of the spine, forward stoop in standing and a small kyphosis of one spinous process. The patient was treated by plaster jackets and recovered and in three months the pain and sensitiveness had entirely disappeared. For the past three years the child has led a normal healthy life, but still wears a plaster jacket. The kyphosis has almost disappeared, but one spinous process can be felt to be slightly prominent. From a clinical point of view these were cases of Pott's disease and there was no doubt of the diagnosis until the evidence of the first skiagram was considered. When it was considered that the disease was cured a skiagram was taken and at once the abnormal aspect of the picture was apparent and raised a doubt of the original diagnosis. The differences between the skiagraphic appearances and those of true Pott's disease are as follows: In the two patients the lesion attacked only one vertebra. In Pott's disease there are always at least two vertebrae affected. The adjacent discs above and below the diseased vertebra were intact. The cartilage was thicker and there was greater opacity, which indicates that the bone density had increased. It is impossible to escape the conclusion that there is some connexion between this condition in the spinal column and pseudo-coxalgia or Legg-Calvé's disease as well as Köhler's disease.

Disturbances of Circulation of the Extremities.

B. BROOKS (*Journal of Bone and Joint Surgery*, April, 1925) describes a method for determining the degree of deficiency of the circulation in limbs. The test described is a modification of the Moszkowicz test which consists in observing the change in colour resulting from the alternate application and removal of a tourniquet. In the test described by the author the criterion of deficiency of the circulation is the change in the temperature after the removal of a tourniquet. The apparatus used consists of a thermocouple mounted in a hypodermic needle and a galvanometer. When the circulation has been completely stopped for a period of ten minutes, there is an appreciable fall in temperature in a normal subject. The removal of a tourniquet is followed by an immediate and rapid rise of temperature to its former level. If there is impairment in the arterial blood supply, the return of temperature may take from one to ten minutes. In conditions of advanced arterial obstruction the application and removal of a tourniquet may cause no temperature changes at all in the distal tissues. By the application of this method it is possible to obtain information as to the condition of arterial circulation in an extremity. The exact extent of arterial obstruction can be determined by the injection of sodium iodide into the arteries and by X ray examination. The method consists in exposing the primary artery in the extremity to be examined and injecting the solution of sodium iodide into the artery on the distal side of the clamp.

Coxa vara in Adolescence.

F. C. KIDNER (*Journal of Bone and Joint Surgery*, April, 1925) discusses the occurrence of coxa vara in adolescence. The disease is a definite entity and is caused by a disturbance of the nutrition of epiphyseal line in the upper end of the femur. The coxa vara deformity is due to weight bearing in very heavy children. The author thinks that the disturbance in nutrition is caused by endocrine deficiency and is not due to rickets or trauma. Reduction of the displacement can be obtained and if maintained long enough, a complete cure can be effected.

Surgical Treatment of Angina and Bronchial Asthma.

G. HOFER (*Wiener Medizinische Wochenschrift*, August 1, 1925) gives an historical survey of the operations performed for angina and bronchial asthma and expresses his preference for division of the cardiac depressor fibres of the vagus. Full details of the operation are given. He considers that one side should be done and allowed to heal and the larynx examined before operation on the opposite side is undertaken.

British Medical Association News.

SCIENTIFIC.

A MEETING OF THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Lister Hall, Hindmarsh Square, Adelaide, on September 24, 1925, Dr. C. T. DE CRESPIGNY, the President, in the chair.

Obstetrics.

DR. A. A. LENDON read a paper entitled: "Gleanings from a Midwifery Practice" (see page 669).

DR. R. F. MATTERS read a paper entitled: "Modern Developments in Obstetrics" (see page 672).

DR. W. A. VERCQ said that in looking back over his case histories for many years, he had come across many such as those described by Dr. Lendon. In these the patients suffered from oedema all over the body and manifested no evidence of toxæmia or of kidney disease. He had regarded such conditions as due to renal insufficiency. When the fetus was born and the abnormal intraabdominal pressure was removed, a great flow of urine occurred for a few days and then the swelling speedily disappeared.

In regard to the length of time of pregnancy he had had under his care several patients whose pregnancy had undoubtedly lasted ten months. In one instance the duration had been slightly longer than this. He had understood for some time that pregnancy might continue up to three hundred and fifty days in rare instances. In estimating the probable duration of pregnancy it was not enough in some instances to rely on the time of the last period. Some women might not become pregnant for some weeks or even months after the last period. This was especially the case with women whose menstrual periods were irregular. In the estimation of the period of pregnancy in such cases, it was necessary to take into consideration the size of the uterus, the time of the onset of sickness which was generally one month after becoming pregnant and the time at which movements were felt and this was generally from the sixteenth to the eighteenth week.

Dislocation of Carpal Bones.

DR. B. SMEATON showed a man who had fallen from a scaffold on to his hand and had dislocated the proximal row of his carpal bones. Under anaesthesia and guided by the X ray screen an attempt had been made to reduce the displaced bones, which had been extruded forwards on to the palmar surface. This had been done unsuccessfully, so the dislocated mass, which included the scaphoid, semilunar and cuneiform, had been excised through a longitudinal palmar incision. The result as regards flexion and extension of the wrist was good, but adduction and abduction at the wrist were distinctly limited.

Schlatter's Disease.

DR. C. DUGUID demonstrated a case of Schlatter's disease or partial displacement of the tubercle of the tibia due to injury in a boy of twelve years. He had treated the patient by keeping the knee in extension for six weeks, when the pain and tenderness had gone. Then he had allowed the child to walk but not to run or play games for another period of six weeks or so.

Compound Fracture of the Tibia.

Dr. Duguid also showed the skiagram from a patient who had suffered from compound comminuted fracture of the tibia, which had remained ununited after prolonged splinting. The fracture had then been plated, but six weeks later there was still no attempt at union and X ray examination revealed failure of callus formation. The man had then been put on thyroid extract 0.3 grammes (five grains) night and morning. Callus formation had begun almost at once and in a few weeks there had been good bony union and the patient was able to play football and follow his calling of jockey.

Abnormalities in a Fetus

DR. A. F. STOKES AND PROFESSOR J. B. CLELAND showed a seven months fetus in which various abnormalities were present. The mother had had attacks of haemorrhage at three months and five months and the fetus had been born at seven months. There was a history of insanity on the father's side, a brother having had paranoia, a sister climacteric insanity and the father having committed suicide. The mother had given birth to healthy twins three years previously. There was no suggestion of syphilis. X ray photographs of the fetus were shown by Dr. Nott. The following deformities were present: Hare lip and cleft palate, absence of both radii and thumbs and a protuberance at the umbilical area, probably an umbilical hernia, together with a swelling in the umbilical cord beyond the hernia. There was also an accessory auricle on the left side. X ray examination revealed several fractures of the long bones, apparently *post mortem* in origin.

Fleshy Mole.

PROFESSOR J. B. CLELAND showed on behalf of DR. MILDRED MOCATTA a fleshy mole (missed abortion). The patient was aged twenty-eight. She had been married for seven months when amenorrhoea occurred and she had considered herself pregnant. She had presented herself for examination when presumably five months pregnant. There had been no observable or palpable abdominal tumour. The breasts had been virginal. There was no history of morning sickness or of quickening. Jacquemière's sign had been absent. The cervix was not softened and the *corpus uteri* had been in good position and somewhat enlarged. The patient had been informed that she was not pregnant and "Hormotone" with pituitary extract had been ordered. Ten days later she had had severe abdominal pain, preceded by a slight loss of blood from the vagina, when the mole shown was passed.

Pregnancy in the Cornu of a Uterus with Fibroids.

DR. W. T. CLOSE AND PROFESSOR J. B. CLELAND showed a specimen illustrating pregnancy in the cornu of a uterus which was the seat of diffuse fibrosis. The patient was a woman, aged thirty-five years, who had had one child, aged thirteen years, and a miscarriage one year previously. She had given a history suggestive of about four months pregnancy. The menstrual periods had occurred each month and had been slight. She had right iliac pain for five days and a foul discharge for two days. A dead macerated fetus and some placenta had been removed, but symptoms of shock had developed and a laparotomy was performed and the uterus and adnexæ removed, a quantity of foul smelling blood being at the same time evacuated from the peritoneal cavity. The specimen showed that the right cornu of the uterus had been occupied by a pregnancy, the cavity being about seven to eight centimetres in diameter. The main uterine cavity as shown in section was of approximately normal size except where it passed into the right cornu. The pregnancy had caused an upward enlargement of the uterine horn. Its wall was thin, the lining irregular with adherent blood clot, partly red in colour and partly pale and necrotic. An irregular perforation was present in the anterior wall near the midline. This had been plugged with some placental tissue. The fundus of the uterus above the main uterine cavity was hard from diffuse fibromyomatous tissue and measured 3.75 centimetres in thickness. Sections of the thin uterine wall of the pregnancy cavity showed the presence of degenerating villi with considerable polymorphonuclear infiltration. Near the rent there were also villi and syncytium together with leucocytes, areas of necrosis and great masses of bacteria. The right ovary contained a *corpus luteum* 1.2 centimetre in diameter and microscopical examination revealed the commencement of organization and degenerating luteal cells. The left ovary was distended to a size of five centimetres by two cystic cavities with pseudomucinous contents. The lining wall of these cysts were of follicular origin. The left tube was sealed, the right being patent at its fimbriated extremity. It seemed as though the dense irregular myofibrosis of the body of the uterus had con-

tributed to the irregular behaviour of the course of the pregnancy. The ovum had been implanted in one of the cornua and the rest of the uterine cavity had not co-operated in the hyperplastic changes associated with pregnancy. The fetus had died and had become infected. The commencing organization of the *corpus luteum* suggested that death might have occurred some time previously. Infection and necrosis of the wall had occurred resulting in a perforation.

A MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the invitation of the Dean of the Faculty of Medicine, PROFESSOR R. J. A. BERRY, in the Anatomy Department of the University of Melbourne on November 16, 1925.

The meeting was largely attended and many members of the post-graduate course availed themselves of the invitation extended to them to attend the demonstrations.

Hæmatological Studies.

DR. LESLIE HURLEY demonstrated the use of the Edinger micro-projection apparatus in (i.) histological reconstruction work and (ii.) the plotting of the Price-Jones curve. The Price-Jones curve represents a method of hæmatological investigation by means of which valuable evidence is obtained as to whether the pathological changes in a given film of blood are to be interpreted as indicative of pernicious or hæmolytic anaemia as against secondary or symptomatic anaemia. By means of the Edinger apparatus the microscopic field is projected on to a sheet of paper. The observer then measures the diameters of a number of red cells, in practice generally five hundred, by means of callipers. Each red corpuscle is measured in two diameters and the average struck for the diameter of the cell.

In plotting the curve the diameter measurements constitute the abscissæ and the actual number of red cells of any particular diameter the ordinates. In the normal film the vast majority of red corpuscles fall between the points representing 6 μ and 8 μ diameter and the curve rises to a sharp peak from the base line at or about 6 μ , returning near the point representing 8 μ . In pernicious anaemia, by reason of the average increase in size of the red corpuscles, the curve is displaced to the right. In secondary anaemia and in chlorosis the curve falls to the left of that representing the normal.

At a later period of the evening Dr. Leslie Hurley delivered a lantern lecture on the development and abnormalities of the heart, giving especial prominence to the malformations likely to be encountered in clinical practice.

Cerebral Amentia.

A lecture was delivered by PROFESSOR R. J. A. BERRY on physical and mental testing in the diagnosis of cerebral amentia.

Films lent by DR. J. F. MACKEDDIE were projected by the "Cine-Kodak" operated by Mr. Brown, of the Kodak Company. The films illustrated detailed clinical neurological examinations and the technique of *cisterna magna* puncture.

Anatomical Demonstrations.

Anatomical demonstrations from a profusion of excellent museum preparations and dissections made for the occasion were given by various members.

MR. T. E. VICTOR HURLEY, C.M.G., dealt with the surgical anatomy of the hand with special reference to hand and finger infections and the surgical anatomy of the breast.

MR. W. ALLAN HAILES, D.S.O., demonstrated the subjects of the surgical anatomy of inguinal and femoral herniae and the anatomy of the upper portion of the abdomen on the right side, including the biliary apparatus.

MR. MERVYN A. STEWART spoke on the anatomy of the brachial plexus with special reference to lesions encountered and the surgical anatomy of the axilla.

MR. A. S. MORTIMER TYMMS discussed the muscle attachments in relation to fractures and the surgical anatomy of the knee joint.

DR. ROBERT SOUTHBY gave a demonstration on the anatomy of the surgical approaches to the hip joint.

DR. F. KINGSLEY NORRIS gave a demonstration of the development of the epiphyses in the child and their relation to injuries with radiological illustrations.

MR. RUPERT M. DOWNES, C.M.G., dealt with the anatomy of paralytic *talipes* and the surgical anatomy of the glands of the neck.

MR. W. G. DISMORE UPJOHN, O.B.E., selected the surgery of the shoulder joint and the anatomy of the male and female pelvic floor.

Lastly DR. A. E. COATES presented a dissection showing some of the anatomical difficulties of lumbar rhizotomy and a dissection showing the path taken by the needle in the withdrawal of cerebrospinal fluid from the *cisterna magna*.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

Benjamin, Neil Fernandez, M.B., Ch.M., 1925 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Macarthur, Peter, M.B., B.S., 1917 (Queen's University, Ireland), Walla Walla.

THE undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

D'Ombrain, A. W., M.B., Ch.M., 1923 (Univ. Sydney), 205, Macquarie Street, Sydney.

Flynn, J. J. W., M.B., Ch.M., 1924 (Univ. Sydney), 231, Macquarie Street, Sydney.

Geoffroy, A. J., M.B., Ch.M., 1924 (Univ. Sydney), c/o R. Thomson and Company, 15, Castlereagh Street, Sydney.

Hardwicke, G. A., M.B., Ch.M., 1925 (Univ. Sydney), Walton Crescent, Abbotsford.

Janes, A. F., M.B., Ch.M., 1925 (Univ. Sydney), Kuringai-gai Chase Avenue, Turramurra.

THE undermentioned have been elected members of the Victorian Branch of the British Medical Association:

Jones, James Phillip, M.R.C.S. (England), L.R.C.P., 1915 (London), Port Fairy.

Taylor, Ernest Dove, M.B., B.S., 1925 (Univ. Melbourne), Marong.

Cotter, Timothy John, M.B., B.S., 1924 (Univ. Melbourne), Ripponlea.

THE MEDICAL JOURNAL OF AUSTRALIA.

OWING TO unforeseen circumstances the number of copies of the issue of THE MEDICAL JOURNAL OF AUSTRALIA of December 5, 1925, printed has proved insufficient. The Editor will be grateful to those members who do not keep their copies of the journal after they have read them, if they will send them to him. Four thousand six hundred copies were printed; about fifty are now required.

University Intelligence.

UNIVERSITY OF SYDNEY.

It has been announced that Professor A. E. Mills has not sought reelection as Dean of the Faculty of Medicine. Professor D. A. Welsh has been appointed to succeed Professor Mills.

Obituary.

JAMES ALEXANDER GREER HAMILTON.

SOME ten years ago or so there flourished in Adelaide and its suburbs no less than five doctors Hamilton, of whom four were brothers and the fifth (A. A. Hamilton) had been a school-fellow of some of them. Of these the majority were distinguished by the initials of their Christian names, the late "A.A." was a very successful general practitioner, the late "T.K." was the first specialist to establish himself in Adelaide and to deal with diseases of the throat in combination with ophthalmology. Conspicuous above the rest on account of his height and splendid physique was the one universally known as "J.A.G." or more frequently "JAG" Hamilton and occasionally by his intimate friends as "Jim."

James Alexander Greer Hamilton was born some seventy-one years ago in the County of Tyrone in the North of Ireland, the third son of the family of thirteen of the Reverend Robert Hamilton. He received his preliminary education at the Royal School, Dungannon. At Trinity College, Dublin, it was necessary to take the arts as well as the medical course, but he succeeded in acquiring both his degrees when he was just of age; as a sort of post-graduate course he took the diploma of licentiate of the Royal College of Surgeons of Edinburgh, and almost immediately afterwards he left for Australia. He was registered in Adelaide in December, 1876, and received the appointment of Medical Officer to the Wallaroo Hospital. After a two years' stay at this mining seaport on Yorke's Peninsula he migrated to the busy mining town of Kapunda to the north-east of Adelaide, where he spent about twelve years, building up a large practice as a general practitioner and gaining more particularly a reputation as a bold and skilful surgeon at the local hospital. During his stay at Kapunda the first Branch of the British Medical Association to be started in Australia was established in Adelaide in 1879, and "J.A.G." became a foundation member, his only surviving colleagues being Sir Joseph Verco, Dr. W. T. Hayward, Dr. O. Wien Smith and Sir John Cockburn; in the year 1890 he was appointed President of the Branch. This compliment, paid to a country member for the first time may have influenced his decision to come to Adelaide and try his fortune on a bigger stage. Soon after his arrival the late Dr. E. W. Way broke down in health and took a prolonged holiday; he offered Dr. Hamilton a partnership and until Dr. Way's death in 1901 they worked in great harmony, both in private and at the Adelaide Hospital, being recognized as the leading gynaecologists of South Australia. Both were much indebted in the absence of a special post-graduate training in English and foreign clinics to the somewhat brusque criticism offered by Professor Watson. They recognized the undoubted gifts of application of his anatomical knowledge to surgical technique. On the death of Dr. Way a lectureship in gynaecology was founded in his memory, which Dr. Hamilton held till he resigned it on account of increasing deafness, when he retired to a farm worked by his son in Western Australia. A year or two ago he returned to Adelaide and the last few months of his life he spent at the North Adelaide Private Hospital, where so much of his best work had been done, awaiting, even welcoming, his end with a splendid courage and with comparative indifference to the malignant complaint which at times caused him considerable distress.

Although "J.A.G." neither invented a new pessary nor gave his name to a modification of the well-known "Smith-Jones" operation, he nevertheless by his lectures and writings did good work in his specialty. Like many of his fellow countrymen he was fluent of speech; perhaps at times in consequence of that monotonous intonation which is so common in those who are hard of hearing and in spite of his rich brogue, he may have been a little too fluent; nevertheless his arguments in debate were sound and reinforced by his large experience. At the various interstate congresses he held office in his section and contributed many notable articles, while a whole generation of

medical students acknowledge their indebtedness to his teaching. For some time he held office as a member of the Medical Board of South Australia.

Like his brother "T.K." he was fond of horses; "T.K." bred them but at a financial disadvantage; "J.A.G." backed them, probably with equally unsatisfactory results; still, remembering that his birthplace was Castle "Caulfield" it might have been of him that the poet sang:

"The points of a horse I can divine."

At one time, that of the gold boom in Western Australia, he was on the road to become a millionaire, being one of the famous syndicate of fifteen, whose representatives discovered the Golden Mile. Had he held on, he might have been even as Sir George Brookman; as a matter of fact he died a comparatively poor man. In one respect he was rich: he had no enemies, but heaps of friends.

THE JOHN IRVINE HUNTER MEMORIAL FUND.

THE HONORARY TREASURERS OF THE JOHN IRVINE HUNTER MEMORIAL FUND have received the following additional contributions to the fund. The progress is slow. Up to the present date the total number of contributors is 185, of whom 105 are members of the medical profession. There are over 3,600 members of the British Medical Association in Australia. The contributors thus represent under 2·9% of the members. There are three excellent reasons why the medical profession should give the public a strong lead. The first is that medical practitioners should wish to keep fresh the memory of their colleague, a young genius snatched from life and utility just as he had demonstrated his unusual worth to the world. The second is that the practising doctor depends largely for his advancing knowledge on research work. He should be prepared to acknowledge his indebtedness to research workers in a tangible manner. The third argument is that there is no force so compelling as example. The wealthy citizens of Australia have not yet acquired the habit of supporting medical research as a national investment. In other countries the city magnates often put their faith in the medical investigator when with advancing age the wisdom of "unloading" their surplus wealth becomes apparent. The "big men" of Australia must be shown the way by the medical profession. Please send your contributions, large or small, to the Honorary Treasurers, Dr. R. Noble and Dr. Constance D'Arcy, Medical School, University of Sydney. The lists cannot be too long for us to publish week by week.

	£	s.	d.
Previously acknowledged	1,618	7	6
Dr. T. S. Hansman	25	0	0
Dr. Constance E. D'Arcy	15	15	0
Dr. Herbert Sear	10	10	0
Dr. R. Scot Skirving	10	10	0
Dr. and Mrs. Sydney G. Iceton	10	0	6
Dr. R. Worrall	10	0	0
Dr. St. J. W. Dansey	5	5	0
Dr. J. Hoets	5	5	0
Dr. A. Holmes à Court	5	5	0
Dr. H. A. Tebbutt	5	5	0
Professor F. Anderson	3	3	0
Dr. J. Bostock	3	3	0
Dr. S. S. Merrifield	3	3	0
Dr. R. J. Silvert	3	3	0
Dr. W. E. Giblin	2	2	6
Dr. E. P. Holland	2	2	6
Dr. A. V. M. Anderson	2	2	0
Dr. A. J. Gibson	2	2	0
Dr. G. M. B. Hales	2	2	0
Dr. C. L. S. Macintosh	2	2	0
Dr. F. V. McAdam	2	2	0
Dr. E. Rivett	2	2	0
Dr. E. W. Kerr Scott	2	2	0
Dr. H. Reynolds Scrivener	2	2	0
Dr. W. Yum	2	2	0
Dr. M. R. Finlayson	1	1	6
Dr. T. G. Fleming	1	1	6

Dr. A. Goode	1	1	3
The Misses Shaw and Ellis	1	1	0
Dr. F. R. Legge	1	1	0
Dr. K. M. Locke	1	1	0
Mrs. H. E. Barff	1	1	0
Dr. T. M. Barnet	1	1	0
Dr. J. B. Matthews	1	1	0
Dr. C. Anderson	1	1	0
Dr. A. E. Morris	1	1	0
Total	£1,768	10	3

Correspondence.

DIATHERMY.

SIR: It is a matter of great pleasure to me as the pioneer of diathermy in Australia to see the gradual extension of its use. I often wonder why it has taken so long for the profession to grasp its possibilities. On the surgical side the treatment of new growth by coagulation necrosis is well recognized, especially epitheliomata of mouth and papillomata of bladder, but its use in many other directions, such as enlargement of prostate, prostatitis, vesiculitis, cervicitis and haemorrhoids should be made use of more frequently.

On the medical side the cases that relapse are often due to the originating cause of the arthritis and fibrosis not being dealt with in a sufficiently thorough manner. One of its most useful activities will be found in bad cases of infantile paralysis where the nutrition of the limb is below par, especially where the skin during winter is liable to superficial ulceration.

Yours, etc.,

W. KENT HUGHES.

22, Collins Street, Melbourne.
November 30, 1925.

OUR INCONSISTENCY.

SIR: Out of respect to your space I confine my remarks to one inconsistency. Recently the master bakers held a conference in Adelaide. One speaker stated that medical men did not advocate whole meal as food; in proof thereof he supplied four hundred white loaves and only five brown to various hospitals. I fear the bakers of Perth would tell a similar story.

Through the painstaking labours of many research workers to whom be all honour, we have definite information that white bread is not a proper food. We are told we are a degenerate race and are going the way of all great nations of the past as shown by the loss of the teeth and the train of complications which follow tooth decay, our proneness to disease and the appalling steadily increasing rate of insanity throughout civilized countries. We are told also that improper feeding of the nation is one of the causes of these conditions, yet as a profession our attitude is that of apathy (perhaps another sign of national decay) towards this question and by that attitude we annul the work of the few, the very few, such as Dr. Dale of the Medical Department of this State, who are trying to bring the people back to the good old ways of our forefathers. If McCarrison, Mellanby, Plummer and a host of such are right, then we are wrong and if wrong then doubly wrong to be improperly feeding our hospital patients. I recently visited a flour mill and found the manager only too anxious to supply the right thing and am now able to get from my baker a loaf made from fine-ground whole wheatmeal which makes one wonder that anyone wants to eat the white trash.

Yours, etc.,

C. JOYCE.

Kelmscott, Western Australia.
October 30, 1925.

INDICATIONS FOR INTERFERENCE DURING PREGNANCY.

SIR: I was much interested in Dr. R. N. Wawn's post-graduate lecture on the above subject.

Writing of contracted pelvis Dr. Wawn holds that by doing Caesarean section at term in those in whom there has been no attempt at delivery, but who did not respond to a test of labour, he gets the best results. I should feel obliged if Dr. Wawn would explain fully what is meant by a "test of labour" and the indications by which one may judge that the test has gone on long enough.

Dr. Wawn's remarks on the treatment of preeclamptic albuminuria are opposed to the usually accepted treatments; nevertheless it is difficult to get away from the logic of his conclusions, but there are one or two points on which one may ask for further evidence:

(1) Can Dr. Wawn show from his records that by his methods albuminuria clears up (*post partum*) in a greater percentage of cases than when the expectant treatment is followed?

(2) Can Dr. Wawn show from his records that the fetal mortality is lessened by the methods he suggests?

In conclusion I should like to express thanks to Dr. Wawn for his lecture whose value is obvious to all interested in obstetric work.

Yours, etc.,

E. S. MEYERS.

Vulture Street, South Brisbane.

November 24, 1925.

DIAGNOSIS OF THE NORMAL HEART.

SIR: Having read Dr. Turnbull's article on the diagnosis of the normal heart, which covers the accepted ideas of the day, there are just a few statements which are not quite clear or with which one is not in agreement. We are told that extrasystoles are devoid of prognostic significance. An extrasystole is an impulse starting in some portion of the heart muscle other than the normal. This of a necessity must be some point of irritation. There are not so many factors capable of forming points of irritation in the myocardium. Bacterial invasion is the one outstanding one. The lodging in the myocardium of a few bacteria of low grade virulence, such as are found in chronic rheumatism, will cause no more disturbance than they would in a case of lumbago or chronic arthritis. The amount of heart disability from such a cause is quite overlooked by the majority. There is very little to show for it clinically, except possibly extrasystoles and some general irritability of the myocardium. As in arthritis due to infective organisms it must be ever in one's mind that the process is acting constantly year after year, till the original cause is completely removed, so that any form of treatment short of this is perfectly inadequate. This applies to heart conditions as well as others.

Dr. Turnbull remarks: "The commonest source of difficulty is in indefinite toxic states, due to poisoning by focal infections *et cetera*. Such conditions give rise to shortness of breath *et cetera*, as this is emphatically not a cardiac symptom." With focal infections of any kind bacteria are blood borne and in such conditions as Dr. Turnbull mentions how is it possible to exclude the probability of the myocardium being invaded by organisms as well as it being poisoned by toxins secreted elsewhere and conveyed to it?

When we realize that practically all cardiac disease, except congenital conditions, are directly or indirectly the result of bacterial invasion, either syphilitic, tubercular or those arising from focal infections, it brings it home to us most emphatically that no treatment of cardiac lesions is of any lasting good which does not aim at eradicating these things. Let us also bear in mind that bacterial invasion of the myocardium is more or less liable in all cases where there is a focal infection, as well as the fact that no person can be healthy for long with them, for sooner or later their resistance becomes lowered and harm

result. It is just as bad knowingly to leave anybody with a focal infection as to know he has syphilis and leave him untreated, as the disability brought about by focal infections exceeds that of syphilis. One has so many clinical evidences of extrasystoles clearing up after removal of focal infections that one is almost forced to the conclusion that they are the result of the irritation of embolic bacteria. It is quite a recognized fact that bacteria do invade the myocardium and it seems hardly possible to conceive that they could not fail to cause premature contractions and that such organisms will cause no more constitutional disturbance than if they had lodged in the lumbar fascia. Entertaining such views one can scarcely deem them devoid of prognostic significance.

Yours, etc.,

SYDNEY PERN.

12, Collins Street, Melbourne.
November 17, 1925.

Books Received.

A SYSTEM OF CLINICAL MEDICINE DEALING WITH THE DIAGNOSIS, PROGNOSIS AND TREATMENT OF DISEASE FOR STUDENTS AND PRACTITIONERS, by Thomas Dixon Savill, M.D. (London); Seventh Edition; 1925. London: Edward Arnold and Company. Royal 8vo., pp. 1032, with illustrations. Price: 28s. net.

PRACTICAL PHYSIOLOGY, by E. P. Cathcart, M.D., D.Sc., F.R.S., D. Noël Paton, M.D., LL.D., F.R.S., and M. S. Pembrey, M.A., M.D., F.R.S.; Second Edition; 1925. London: Edward Arnold and Company. Demy 8vo., pp. 422, with illustrations. Price: 18s. net.

BAINBRIDGE AND MENZIES' ESSENTIALS OF PHYSIOLOGY; Fifth Edition, Edited and Revised by C. Lovatt Evans, D.Sc. (London), M.R.C.S., L.R.C.P., F.R.S.; 1925. London: Longmans, Green and Company. Demy 8vo., pp. 508, with illustrations. Price: 14s. net.

A HANDBOOK OF GYNECOLOGY FOR THE STUDENT AND GENERAL PRACTITIONER, by Bethel Solomons, B.A., M.D. (Univ. Dublin), F.R.C.P.L., M.R.I.A.; Second Edition; 1925. London: Baillière, Tindall and Cox. Demy 8vo., pp. 317, with illustrations. Price: 12s. net.

SELECTED PAPERS SURGICAL AND PATHOLOGICAL, by F. T. Paul, D.Sc., Liverpool (Hon. Caus.), Ch.M., Liverpool, F.R.C.S., England; 1925. London: Baillière, Tindall and Cox. Demy 8vo., pp. 292, with illustrations. Price: 15s. net.

SCHISTOSOMIASIS VEL BILHARZIASIS, by C. G. Kay Sharp, M.D., with a Foreword by J. B. Christopherson, C.M.G., M.D., F.R.C.P., F.R.C.S.; 1925. London: John Bale, Sons and Danielsson, Limited. Crown 8vo., pp. 74, with illustrations. Price: 7s. 6d. net.

RESPIRATORY FUNCTION IN DISEASE, by Jonathan C. Meakins, M.D., C.M. (McGill), F.R.C.P. (Edinburgh), F.R.S. (Edinburgh), and H. Whitridge Davies, M.B., B.S. (Adelaide); 1925. Edinburgh: Oliver and Boyd. Royal 8vo., pp. 478, with illustrations. Price: 28s. net.

AN INTERMEDIATE TEXTBOOK OF PHYSIOLOGICAL CHEMISTRY WITH EXPERIMENTS, by C. J. V. Pettibone, Ph.D.; Third Edition; 1925. St. Louis: The C. V. Mosby Company. Demy 8vo., pp. 404. Price: \$3.25 net.

PSYCHOLOGICAL HEALING: A HISTORICAL AND CLINICAL STUDY, by Pierre Janet. Translated from the French by Eden and Cedar Paul. In two volumes; 1925. London: George Allen and Unwin, Limited. New York: The Macmillan Company. Demy 8vo., pp. 1,265. Price: 42s. for the set.

Medical Appointments.

Dr. William Henry Fitchett (B.M.A.) has been appointed Public Vaccinator and Medical Officer of Health to the City of Caulfield, Victoria.

* * *

Dr. Roy Halford Stevens (B.M.A.) has been appointed Public Vaccinator at Hopetoun, Victoria.

* * *

Dr. William McLean Borland (B.M.A.) has been appointed Public Vaccinator at Violet Town, Victoria.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xviii.

ADELAIDE CHILDREN'S HOSPITAL: Resident Medical Officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES:	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester United Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Beneficial Society. Phoenix Mutual Provident Society.
VICTORIAN:	Honorary Secretary, Medical Society Hall, East Melbourne.
QUEENSLAND:	Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.
SOUTH AUSTRALIAN:	Honorary Secretary, 12, North Terrace, Adelaide.
WESTERN AUSTRALIAN:	Honorary Secretary, Saint George's Terrace, Perth.
NEW ZEALAND (WELLINGTON Division):	Honorary Secretary, Wellington.

Diary for the Month.

DEC. 14.—New South Wales Branch, B.M.A.: Organization and Science Committee.
DEC. 15.—Tasmanian Branch, B.M.A.: Council.
DEC. 15.—New South Wales Branch, B.M.A.: Medical Politics Committee.
DEC. 16.—Western Australian Branch, B.M.A.: Branch.
DEC. 18.—Queensland Branch, B.M.A.: Council.
DEC. 19.—Eastern Districts Medical Association (Port Macquarie), New South Wales.
DEC. 31.—South Australian Branch, B.M.A.: Branch.
JAN. 5.—New South Wales Branch, B.M.A.: Council (Quarterly).
JAN. 7.—South Australian Branch, B.M.A.: Council.
JAN. 12.—New South Wales Branch, B.M.A.: Ethics Committee.
JAN. 14.—Victorian Branch, B.M.A.: Council.
JAN. 19.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
JAN. 26.—New South Wales Branch, B.M.A.: Organization and Science Committee; Medical Politics Committee.
JAN. 27.—Victorian Branch, B.M.A.: Council.
FEB. 3.—Victorian Branch, B.M.A.: Presentation of Balance Sheet, 1925.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, Sydney. (Telephones: MW 2651-2.)

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and book-sellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rates are £2 for Australia and £2 5s. abroad per annum payable in advance.